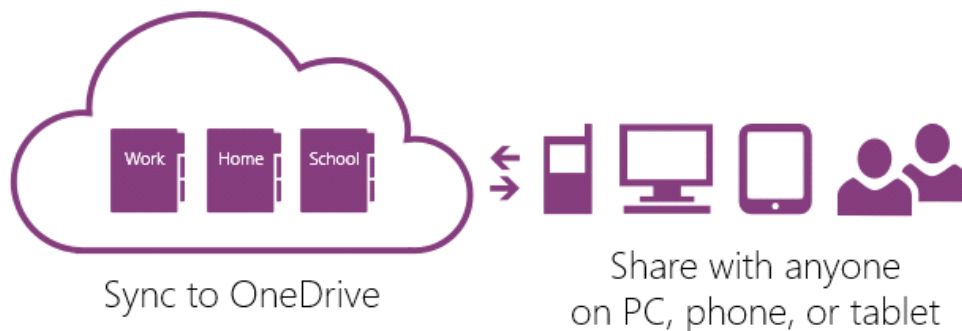



OneNote: one place for all of your notes



 [Watch the 2 minute video](#)

1. Take notes anywhere on the page

Write your name here



2. Get organized

You start with "My Notebook" - everything lives in here

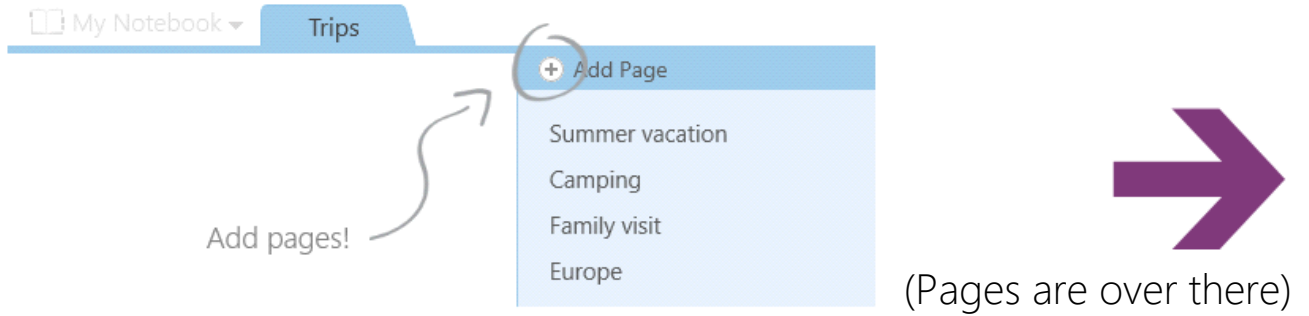


Add **sections** for activities like:

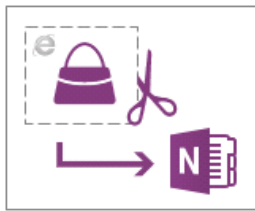


Add **pages** inside of each section:

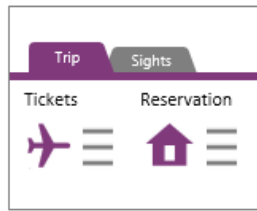




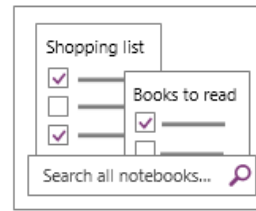
3. For more tips, check out 30 second videos



[Clip from the web](#)



[Plan a trip with others](#)



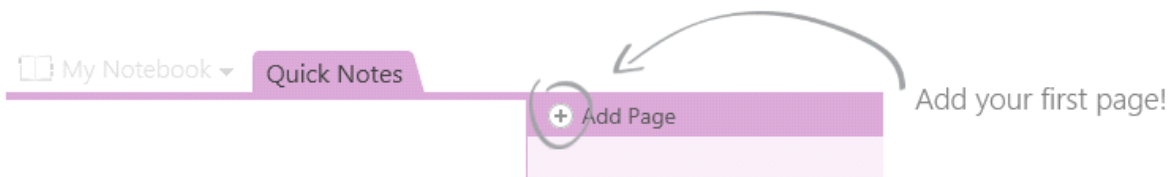
[Search notes instantly](#)



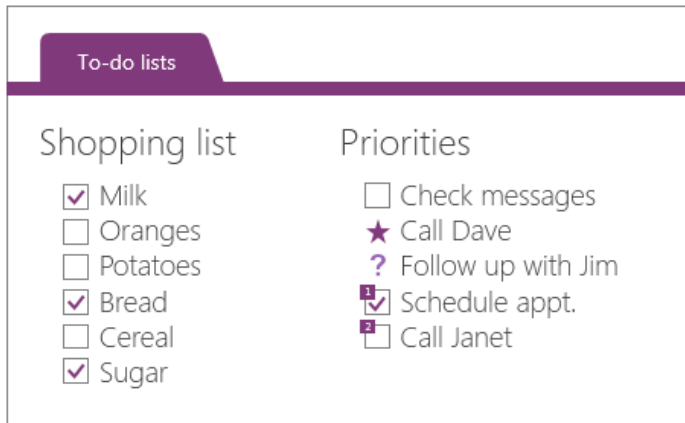
[Write notes on slides](#)

4. Create your first page

You're in the Quick Notes section - use it for random notes

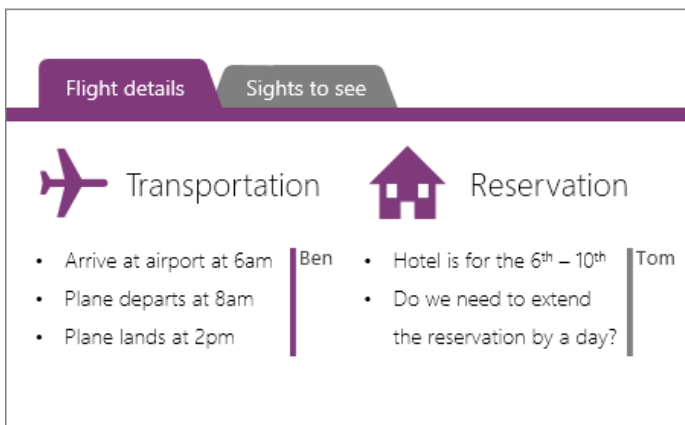


OneNote Basics



Remember everything

- ▶ Add Tags to any notes
- ▶ Make checklists and to-do lists
- ▶ Create your own custom tags



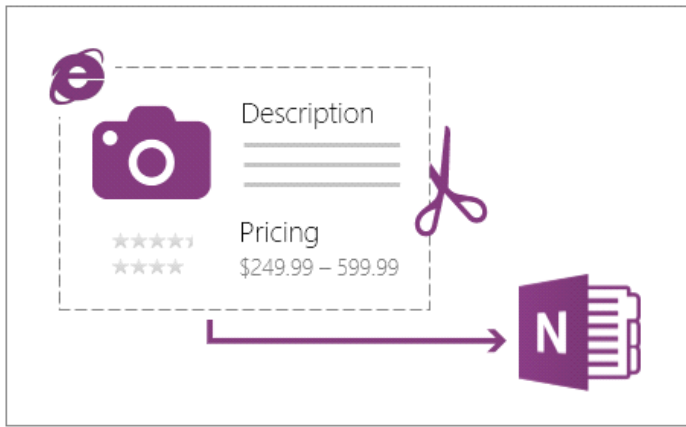
Collaborate with others

- ▶ Keep your notebooks on OneDrive
- ▶ Share with friends and family
- ▶ Anyone can edit in a browser





Keep everything in sync

- ▶ People can edit pages at the same time
- ▶ Real-Time Sync on the same page
- ▶ Everything stored in the cloud
- ▶ Accessible from any device



Clip from the web

- ▶ Quickly clip anything on your screen
- ▶ Take screenshots of products online
- ▶ Save important news articles

 in your taskbar
OR
 + S on your keyboard

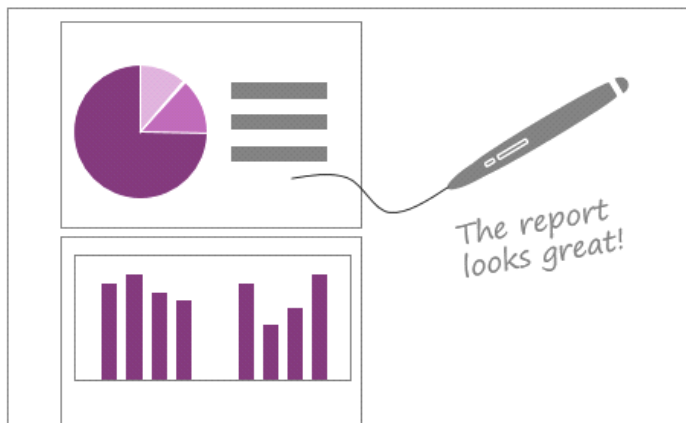
Sunday retreat

	Attending?	Overnight?	Vegetarian?
Chris	Yes	Yes	No
Molly	No	No	No
Peter	Yes	No	Yes
Samuel	Yes	Yes	Yes
Stacy	Yes	No	No

A ↓
Z ↓

Organize with tables

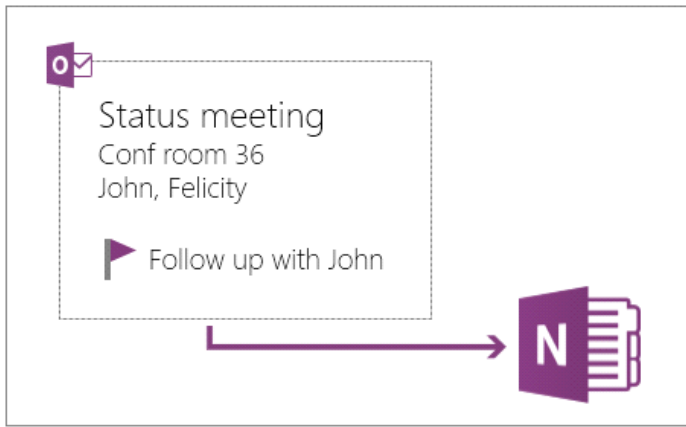
- ▶ Type, then press TAB to create a table
- ▶ Quickly sort and shade tables
- ▶ Convert tables to Excel spreadsheets



Write notes on slides

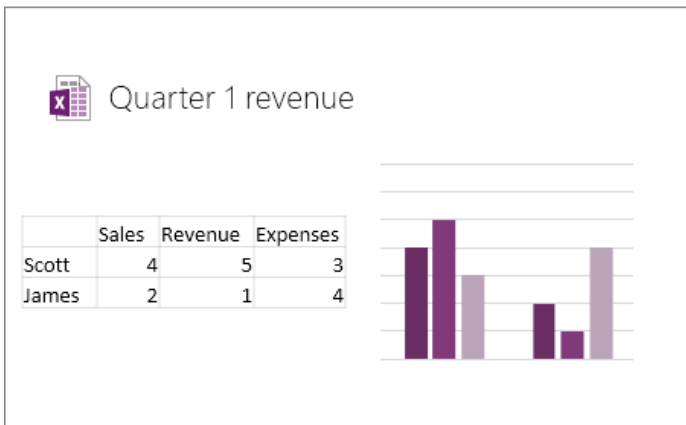
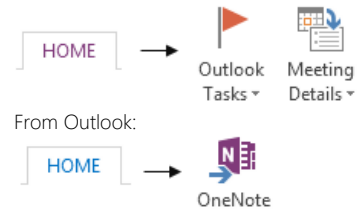
- ▶ Send PowerPoint or Word docs to OneNote
- ▶ Annotate with a stylus on your tablet
- ▶ Highlight and finger-paint

 in your taskbar
OR
 + N on your keyboard



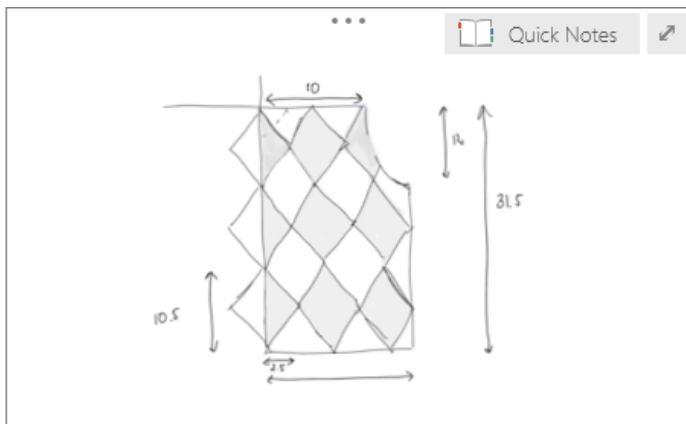
Integrate with Outlook

- ▶ Take notes on Outlook or Lync meetings
- ▶ Insert meeting details
- ▶ Add Outlook tasks from OneNote



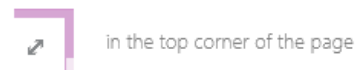
Add Excel spreadsheets

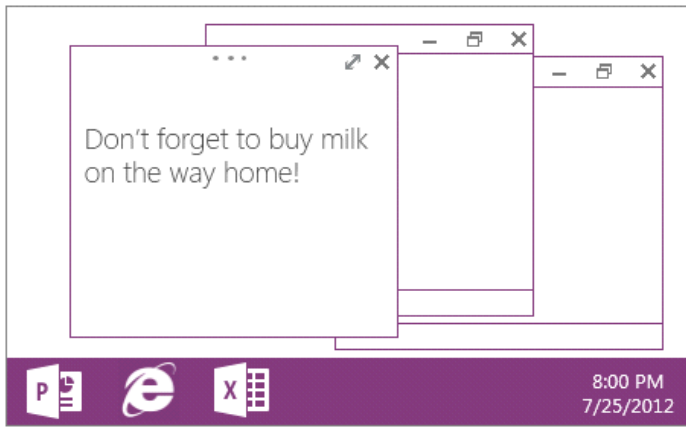
- ▶ Track finances, budgets, & more
- ▶ Preview updates on the page



Brainstorm without clutter

- ▶ Hide everything but the essentials
- ▶ Extra space to focus on your notes



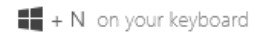


Take quick notes

- Quickly jot down thoughts and ideas
- They go into your Quick Notes section



OR



9.1

Saturday, April 4, 2015 3:10 PM

WebAssign
Section 9.1 (Homework)John Putkey
MATH 2414 - CALCULUS II - CRN 46148 - SPRING 2015, Spring 2015
Instructor: Jaime Hernandez

Current Score : 4 / 60 Due : Monday, May 4 2015 11:00 AM CDT

1. 2/2 points | [Previous Answers](#)LarCalc9 9.1.004.

Write the first five terms of the sequence.

$$a_n = \left(-\frac{3}{4}\right)^n$$

$a_1 =$

$a_2 =$

$a_3 =$

$a_4 =$

$a_5 =$

Need Help?

Read It

Chat About It

2. 2/2 points | [Previous Answers](#)LarCalc9 9.1.005.

Write the first five terms of the sequence.

$$a_n = \cos\left(\frac{n\pi}{2}\right)$$

$a_1 =$

$a_2 =$

$a_3 =$

$a_4 =$

$a_5 =$

Need Help?

Read It

Watch It

Chat About It

3. -/3 pointsLarCalc9 9.1.010.

Write the first five terms of the sequence.

$$a_n = 5 + \frac{3}{n} + \frac{5}{n^2}$$

$a_1 =$

$a_2 =$

$a_3 =$

$a_4 =$

$a_5 =$

Need Help?

Read It

Chat About It

4. -/4 pointsLarCalc9 9.1.014.MI.

Write the first five terms of the recursively defined sequence.

$$a_1 = 6, \quad a_{k+1} = \frac{1}{3}a_k^2$$

$a_1 =$

$a_2 =$

$a_3 =$

$a_4 =$

$a_5 =$

Need Help?

Read It

Master It

Chat About It

5. -/2 pointsLarCalc9 9.1.024.

Write the next two apparent terms of the sequence. Describe the pattern you used to find these terms.

$$\frac{9}{2}, 5, \frac{11}{2}, 6, \dots$$

$a_5 =$

$a_6 =$

$a_n =$

Need Help?

Read It

Chat About It

6. -/1 pointsLarCalc9 9.1.032.

Simplify the ratio of factorials.

$$\frac{(n+3)!}{n!}$$

Need Help?

Read It

Chat About It

7. -/1 pointsLarCalc9 9.1.035.

Find the limit of the sequence.

$$a_n = \frac{5n^2}{n^2 + 6}$$

Need Help?

Read It

Watch It

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8. -/1 pointsLarCalc9 9.1.038.

Find the limit of the sequence.

$$a_n = \frac{5n}{\sqrt{n^2 + 6}}$$

Need Help?

Read It

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9. -/1 pointsLarCalc9 9.1.039.

Find the limit of the sequence.

$$a_n = \sin\left(\frac{9}{n}\right)$$

Need Help?

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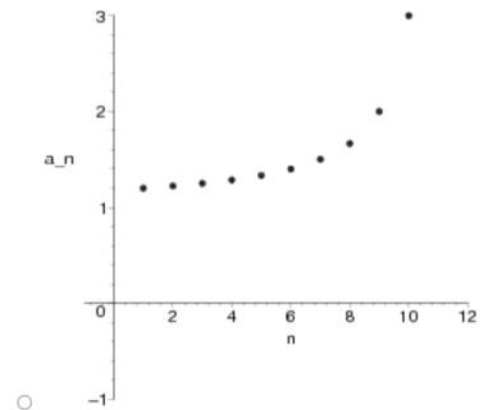
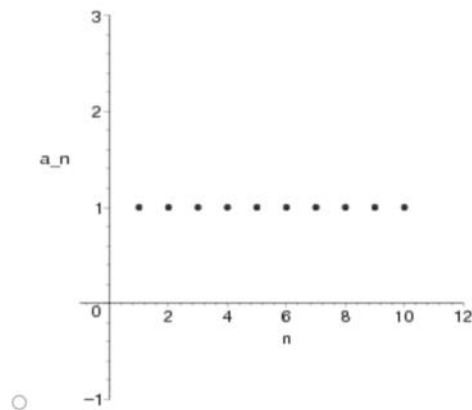
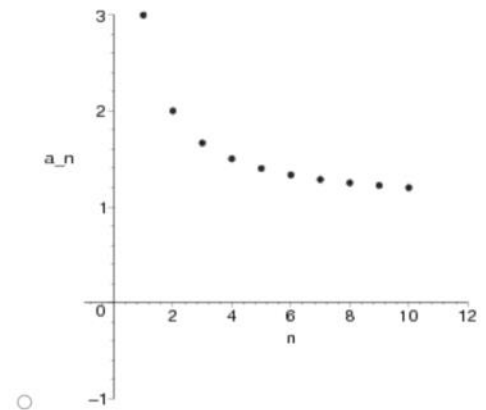
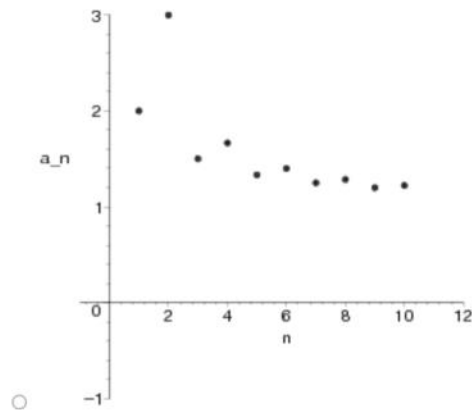
Watch It

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10. -/2 points LarCalc9 9.1.041.

Use a graphing utility to graph the first 10 terms of the sequence.

$$a_n = \frac{n+2}{n}$$



Use the graph to make an inference about the convergence or divergence of the sequence. Verify your inference analytically and, if the sequence converges, find its limit. (If the quantity diverges, enter DIVERGES.)

Need Help?

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11. -/1 pointsLarCalc9 9.1.045.

Determine the convergence or divergence of the sequence with the given n th term. If the sequence converges, find its limit. (If the quantity diverges, enter DIVERGES.)

$$a_n = (0.5)^n - 1$$

Need Help?

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12. -/1 pointsLarCalc9 9.1.047.

Determine the convergence or divergence of the sequence with the given n th term. If the sequence converges, find its limit. (If the quantity diverges, enter DIVERGES.)

$$a_n = \frac{6}{n+3}$$

Need Help?

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13. -/1 pointsLarCalc9 9.1.049.

Determine the convergence or divergence of the sequence with the given n th term. If the sequence converges, find its limit. (If the quantity diverges, enter DIVERGES.)

$$a_n = (-1)^n \left(\frac{n}{n+7} \right)$$

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14. -/1 pointsLarCalc9 9.1.052.

Determine the convergence or divergence of the sequence with the given n th term. If the sequence converges, find its limit. (If the quantity diverges, enter DIVERGES.)

$$a_n = \frac{\sqrt[6]{n}}{\sqrt[6]{n} + 5}$$

Need Help?

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15. -/1 pointsLarCalc9 9.1.054.

Determine the convergence or divergence of the sequence with the given n th term. If the sequence converges, find its limit. (If the quantity diverges, enter DIVERGES.)

$$a_n = \frac{1 \cdot 3 \cdot 5 \cdot \dots \cdot (2n - 1)}{n!}$$

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16. -/1 pointsLarCalc9 9.1.055.

Determine the convergence or divergence of the sequence with the given n th term. If the sequence converges, find its limit. (If the quantity diverges, enter DIVERGES.)

$$a_n = \frac{9 + (-1)^n}{n}$$

Need Help?

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17. -/1 pointsLarCalc9 9.1.057.MI.

Determine the convergence or divergence of the sequence with the given n th term. If the sequence converges, find its limit. (If the quantity diverges, enter DIVERGES.)

$$a_n = \frac{\ln(n^5)}{6n}$$

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18. -/1 pointsLarCalc9 9.1.059.

Determine the convergence or divergence of the sequence with the given n th term. If the sequence converges, find its limit. (If the quantity diverges, enter DIVERGES.)

$$a_n = \frac{6^n}{7^n}$$

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19. -/1 pointsLarCalc9 9.1.062.

Determine the convergence or divergence of the sequence with the given n th term. If the sequence converges, find its limit. (If the quantity diverges, enter DIVERGES.)

$$a_n = \frac{(n-3)!}{n!}$$

Need Help?

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20. -/1 pointsLarCalc9 9.1.065.

Determine the convergence or divergence of the sequence with the given n th term. If the sequence converges, find its limit. (If the quantity diverges, enter DIVERGES.)

$$a_n = \frac{n^w}{e^n}, \quad w > 0$$

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21. -/1 pointsLarCalc9 9.1.067.

Determine the convergence or divergence of the sequence with the given n th term. If the sequence converges, find its limit. (If the quantity diverges, enter DIVERGES.)

$$a_n = 8^{1/n}$$

Need Help?

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22. -/1 pointsLarCalc9 9.1.069.

Determine the convergence or divergence of the sequence with the given n th term. If the sequence converges, find its limit. (If the quantity diverges, enter DIVERGES.)

$$a_n = \left(1 + \frac{k}{n}\right)^n$$

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23. -/1 pointsLarCalc9 9.1.071.

Determine the convergence or divergence of the sequence with the given n th term. If the sequence converges, find its limit. (If the quantity diverges, enter DIVERGES.)

$$a_n = \frac{\cos(n)}{n}$$

Need Help?

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24. -/1 pointsLarCalc9 9.1.073.

Write an expression for the n th term of the sequence. (Your formula should work for $n = 1, 2, \dots$)

$$1, 4, 7, 10, \dots$$

$a_n =$

Need Help?

Read It

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Chat About It

25. -/1 pointsLarCalc9 9.1.077.

Write an expression for the n th term of the sequence. (Your formula should work for $n = 1, 2, \dots$)

$$\frac{3}{4}, \frac{4}{5}, \frac{5}{6}, \frac{6}{7}, \dots$$

$a_n =$

Need Help?

Read It

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Chat About It

26. -/1 pointsLarCalc9 9.1.079.

Write an expression for the n th term of the sequence. (Your formula should work for $n = 1, 2, \dots$)

$$9, 8 + \frac{1}{2}, 8 + \frac{1}{3}, 8 + \frac{1}{4}, 8 + \frac{1}{5}, \dots$$

$a_n =$

Need Help?

Read It

Watch It

Chat About It

27. -/1 pointsLarCalc9 9.1.081.

Write an expression for the n th term of the sequence. (Your formula should work for $n = 1, 2, \dots$)

$$\frac{1}{4 \cdot 5}, \frac{2}{5 \cdot 6}, \frac{3}{6 \cdot 7}, \frac{4}{7 \cdot 8}, \dots$$

$a_n =$

Need Help?

Read It

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Chat About It

28. -/1 pointsLarCalc9 9.1.084.

Write an expression for the n th term of the sequence. (Your formula should work for $n = 1, 2, \dots$)

$$1, x, \frac{x^2}{2}, \frac{x^3}{6}, \frac{x^4}{24}, \frac{x^5}{120}, \dots$$

$a_n =$

Need Help?

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29. -/1 pointsLarCalc9 9.1.090.

Determine whether the sequence with the given n th term is monotonic and whether it is bounded. Use a graphing utility to confirm your results.

$$a_n = ne^{-n/9}$$

- monotonic and not bounded
- monotonic and bounded
- not monotonic and not bounded
- not monotonic and bounded

Need Help?

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30. -/4 points LarCalc9 9.1.117.

Compute the first six terms of the sequence $\{a_n\} = \{\sqrt[n]{n}\}$. (Round your answers to four decimal places.)

$$a_1 = \text{[input box]}$$

$$a_2 = \text{[input box]}$$

$$a_3 = \text{[input box]}$$

$$a_4 = \text{[input box]}$$

$$a_5 = \text{[input box]}$$

$$a_6 = \text{[input box]}$$

If the sequence converges, find its limit. (If the quantity diverges, enter DIVERGES.)

Need Help?

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31. /10.5 points LarCalc9 9.1.125.

In a study of the progeny of rabbits, Fibonacci (ca. 1170-ca. 1240) encountered the sequence now bearing his name. The sequence is defined recursively as follows.

$$a_{n+2} = a_n + a_{n+1}, \text{ where } a_1 = 1 \text{ and } a_2 = 1.$$

(a) Write the first 12 terms of the sequence.

$a_1 =$	<input type="text"/>	$a_7 =$	<input type="text"/>
$a_2 =$	<input type="text"/>	$a_8 =$	<input type="text"/>
$a_3 =$	<input type="text"/>	$a_9 =$	<input type="text"/>
$a_4 =$	<input type="text"/>	$a_{10} =$	<input type="text"/>
$a_5 =$	<input type="text"/>	$a_{11} =$	<input type="text"/>
$a_6 =$	<input type="text"/>	$a_{12} =$	<input type="text"/>

(b) Write the first 10 terms of the sequence defined below. (Round your answers to four decimal places.)

$$b_n = \frac{a_{n+1}}{a_n}, \quad n \geq 1.$$

$b_1 =$	<input type="text"/>	$b_6 =$	<input type="text"/>
$b_2 =$	<input type="text"/>	$b_7 =$	<input type="text"/>
$b_3 =$	<input type="text"/>	$b_8 =$	<input type="text"/>
$b_4 =$	<input type="text"/>	$b_9 =$	<input type="text"/>
$b_5 =$	<input type="text"/>	$b_{10} =$	<input type="text"/>

(c) The **golden ratio** ρ can be defined by $\lim_{n \rightarrow \infty} b_n = \rho$, where $\rho = 1 + 1/\rho$. Solve this equation for ρ . (Round your answer to four decimal places.)

$$\rho = \text{$$

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32. -/5 points LarCalc9 9.1.127.

Consider the sequence.

$$\sqrt{6}, \sqrt{6 + \sqrt{6}}, \sqrt{6 + \sqrt{6 + \sqrt{6}}}$$

(a) Compute the first five terms of this sequence. (Round your answers to four decimal places.)

$a_1 =$

$a_2 =$

$a_3 =$

$a_4 =$

$a_5 =$

(b) Write a recursion formula for a_n , for $n \geq 2$.

$a_{n+1} =$

(c) Find $\lim_{n \rightarrow \infty} a_n$.

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33. -/2.5 points LarCalc9 9.1.132.

Consider the sequence $\{a_n\} = \{nr^n\}$. Decide whether $\{a_n\}$ converges for each value of r .

- (a) $r = \frac{1}{2}$
- converges
 - diverges
- (b) $r = 1$
- converges
 - diverges
- (c) $r = \frac{8}{7}$
- converges
 - diverges

(d) For what values of r does the sequence $\{nr^n\}$ converge?

$|r| <$

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10.4

Thursday, April 23, 2015 9:20 PM

WebAssign
Section 10.4 (Homework)

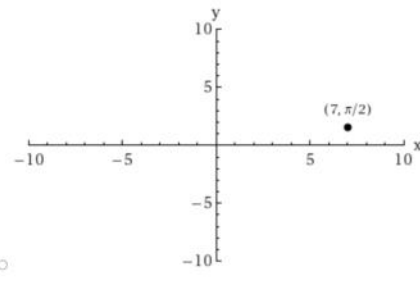
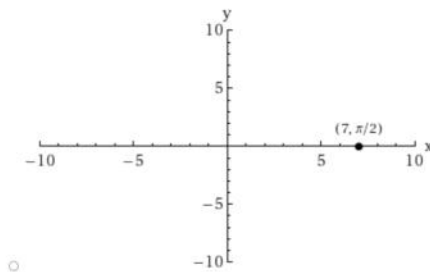
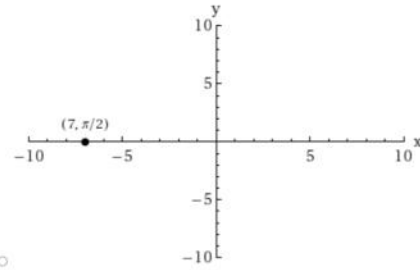
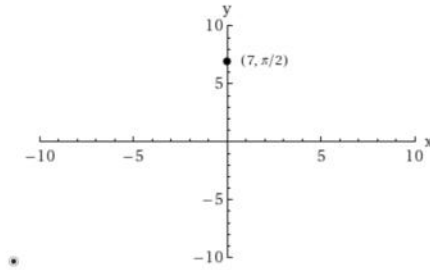
John Putkey
MATH 2414 - CALCULUS II - CRN 46148 - SPRING 2015, Spring 2015
Instructor: Jaime Hernandez

Current Score : 60 / 60 Due : Monday, May 4 2015 11:00 AM CDT

1. 2/2 points | [Previous Answers](#)LarCalc9 10.4.001.

Plot the point in polar coordinates.

$(7, \pi/2)$



Find the corresponding rectangular coordinates for the point.

$(x, y) = (\quad \checkmark \quad)$

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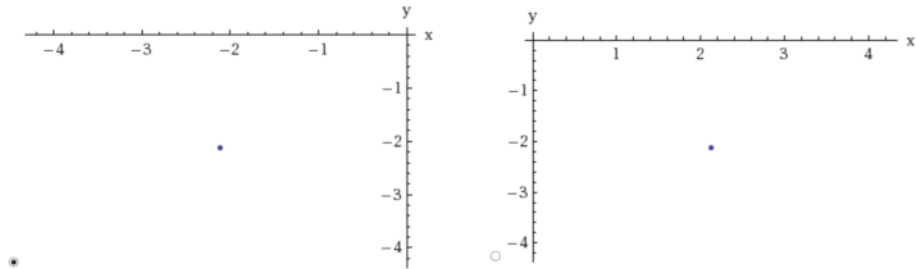
2. 2/2 points | [Previous Answers](#) LarCalc9 10.4.007.

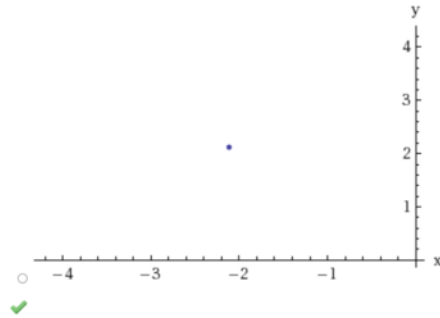
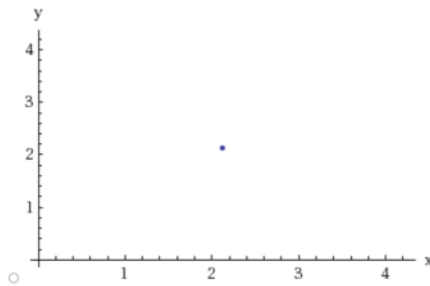
Use the *angle* feature of a graphing utility to find the rectangular coordinates for the point given in polar coordinates.

$(3, 5\pi/4)$

$(x, y) = ($ $)$ 

Plot the point.



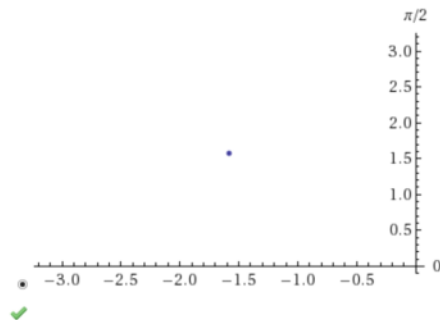
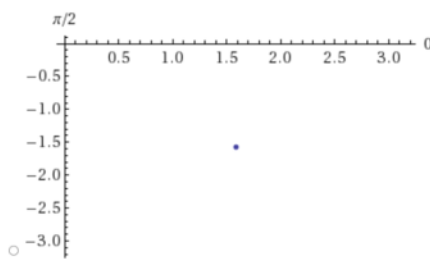
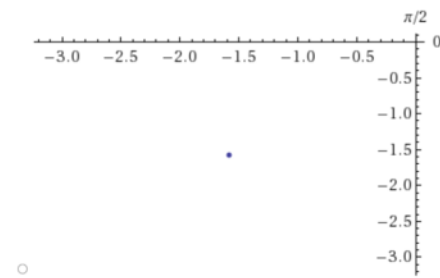
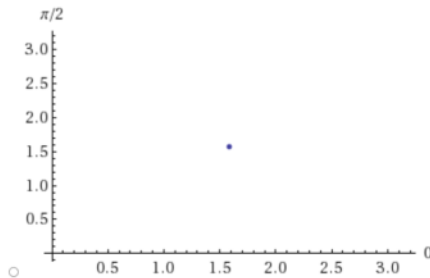


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3. 2.5/2.5 points | [Previous Answers](#)LarCalc9 10.4.005.

Plot the point in polar coordinates.

$$(\sqrt{5}, 2.36)$$



Find the corresponding rectangular coordinates for the point. (Round your answer to three decimal places.)

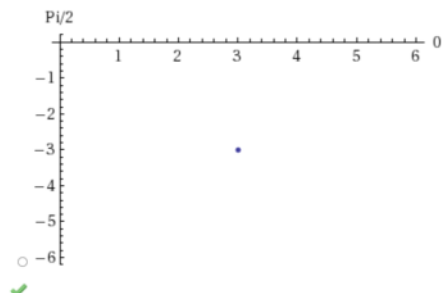
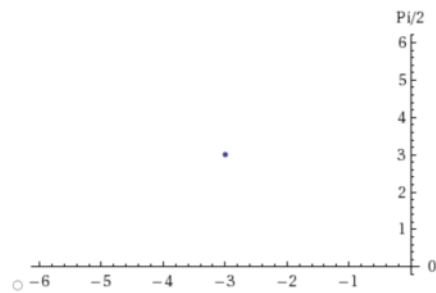
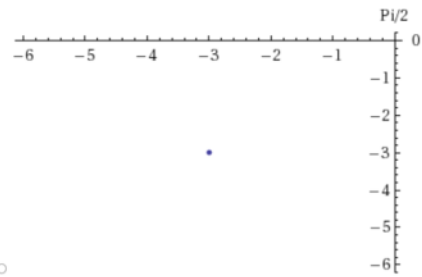
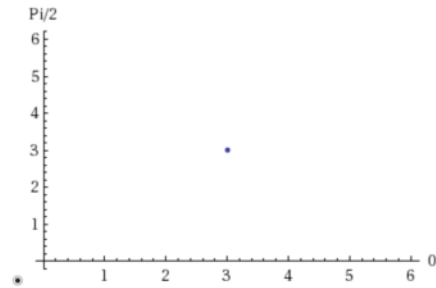
$$(x, y) = (-1.587, 1.575)$$

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4. 3.25/3.25 points | [Previous Answers](#) LarCalc9 10.4.011.

The rectangular coordinates of a point are given. Plot the point.

(3, 3)



Find two sets of polar coordinates for the point for $0 \leq \theta < 2\pi$.

$(r, \theta) =$ (smaller r -value)
 (3, $\frac{\pi}{2}$)

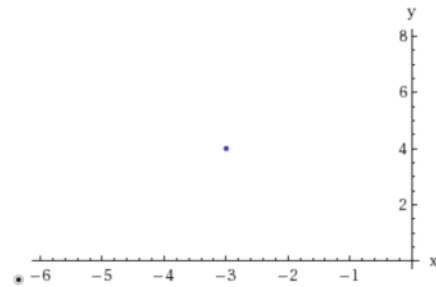
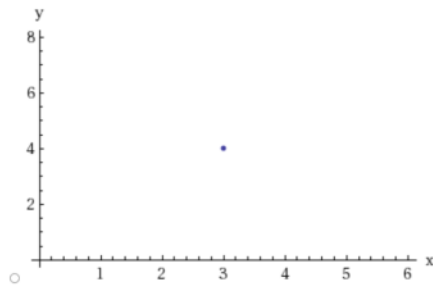
$(r, \theta) =$ (larger r -value)
 (3, $\frac{3\pi}{2}$)

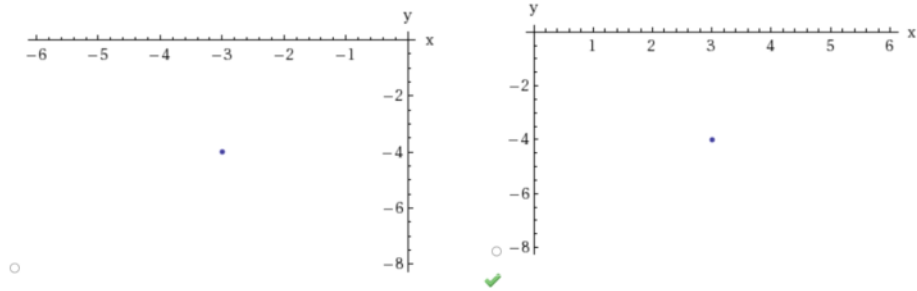
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5. 3.25/3.25 points | [Previous Answers](#)LarCalc9 10.4.013.

The rectangular coordinates of a point are given. Plot the point.

$(-3, 4)$





Find two sets of polar coordinates for the point for $0 \leq \theta < 2\pi$. (Round your answers to three decimal places.)

$(r, \theta) = ($ $)$ (smaller r -value)

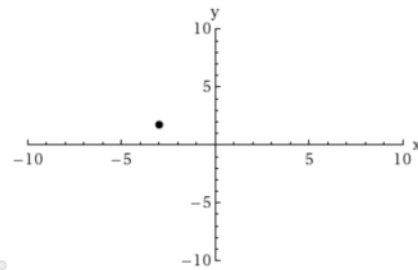
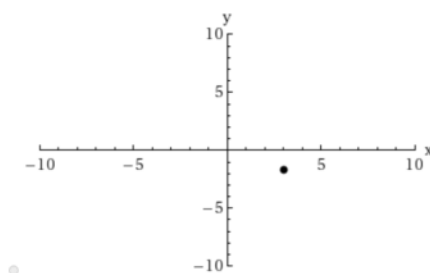
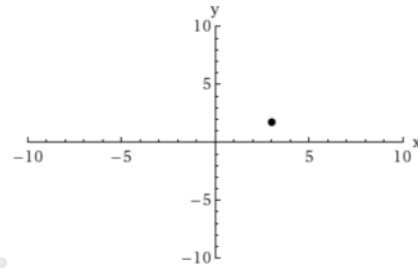
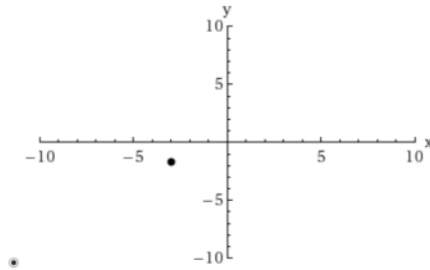
$(r, \theta) = ($ $)$ (larger r -value)

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6. 3.5/3.5 points | [Previous Answers](#)LarCalc9 10.4.015.

The rectangular coordinates of a point are given. Plot the point.

$$(-3, -\sqrt{3})$$



Find two sets of polar coordinates for the point for $0 \leq \theta < 2\pi$. (Round your answers to three decimal places.)

$$(r, \theta) = (\quad \checkmark \quad \{ -3.464, 0.524 \}) \text{ (smaller } r\text{-value)}$$

$$(r, \theta) = (\quad \checkmark \quad \{ 3.464, 3.665 \}) \text{ (larger } r\text{-value)}$$

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7. 1/1 points | [Previous Answers](#)LarCalc9 10.4.020.

Use the *angle* feature of a graphing utility to find one set of polar coordinates for the point given in rectangular coordinates. (Round your answer to three decimal places.)

$$(0, -6)$$

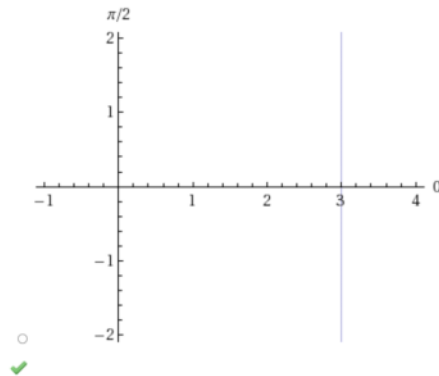
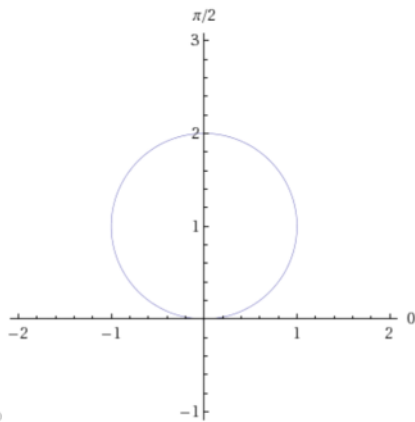
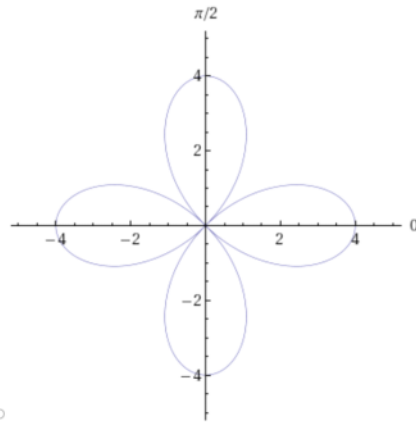
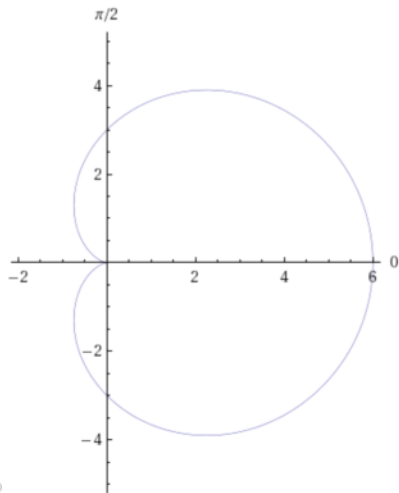
$$(r, \theta) = (\quad \checkmark \quad)$$

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8. 1.5/1.5 points | [Previous Answers](#) LarCalc9 10.4.024.

Match the graph with its polar equation.

$$r = 2 \sin(\theta)$$

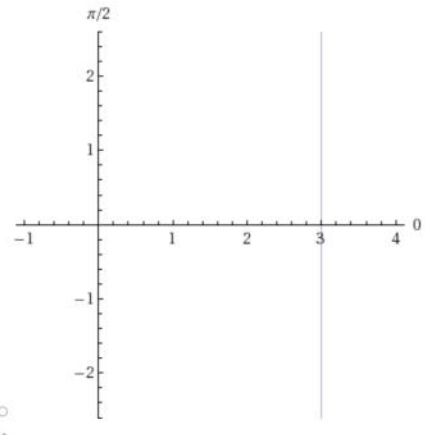
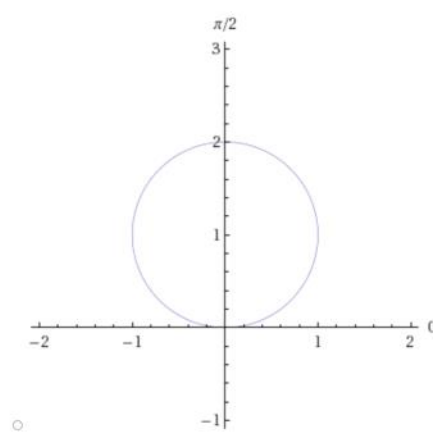
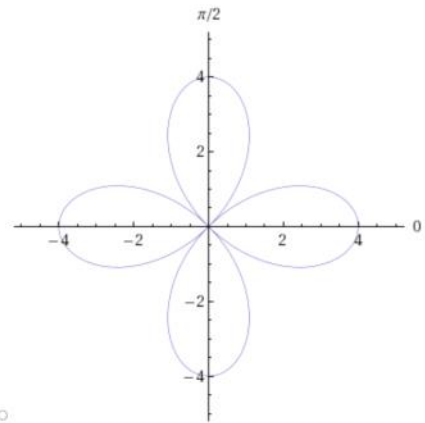
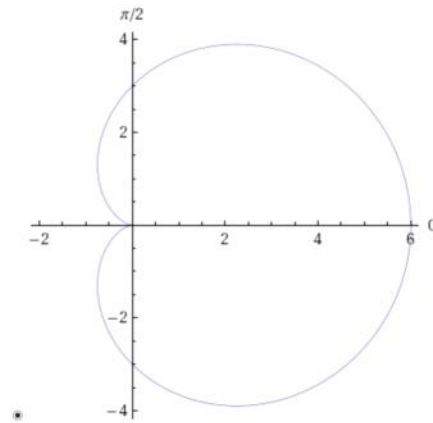


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9. 1.5/1.5 points | Previous Answers LarCalc9 10.4.026.

Match the graph with its polar equation.

$$r = 3(1 + \cos(\theta))$$

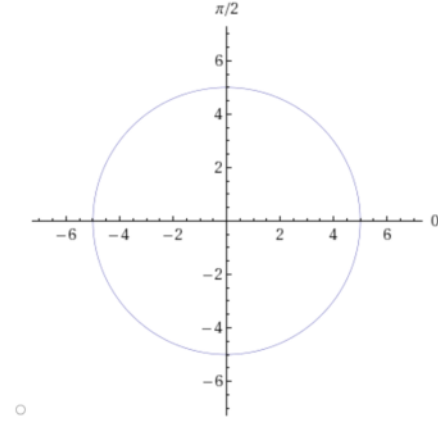
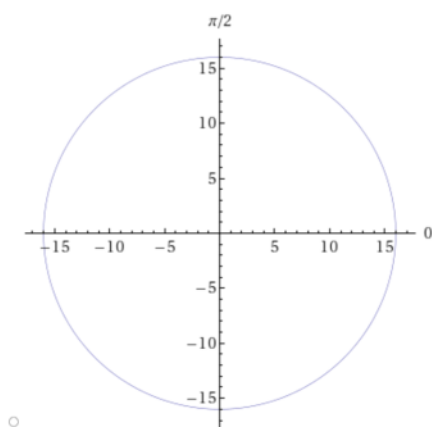
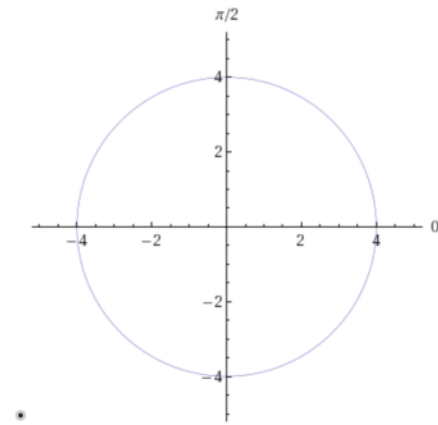
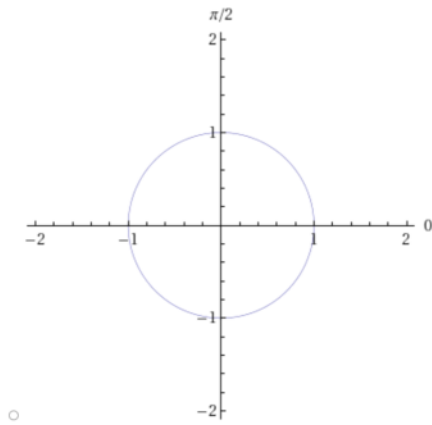


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10.2/2 points | [Previous Answers](#) LarCalc9 10.4.027.

Convert the rectangular equation to polar form and select its graph.

$$x^2 + y^2 = 16$$

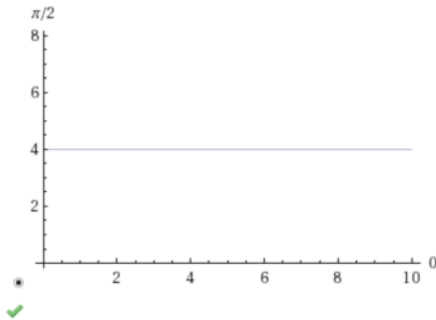
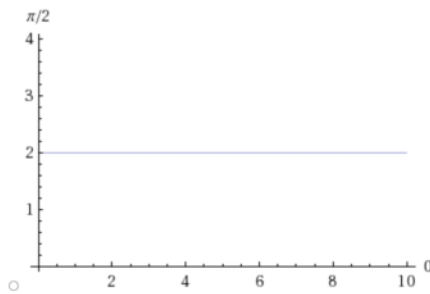
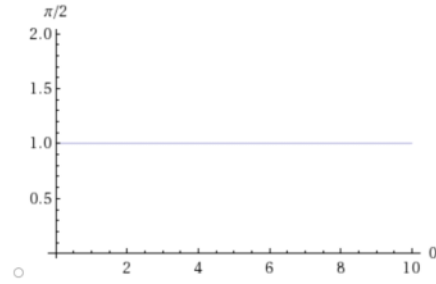
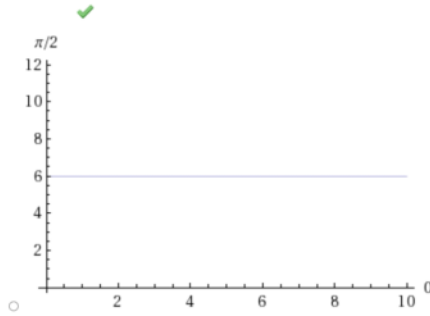


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11.2/2 points | [Previous Answers](#) LarCalc9 10.4.031.

Convert the rectangular equation to polar form and sketch its graph.

$$y = 4$$



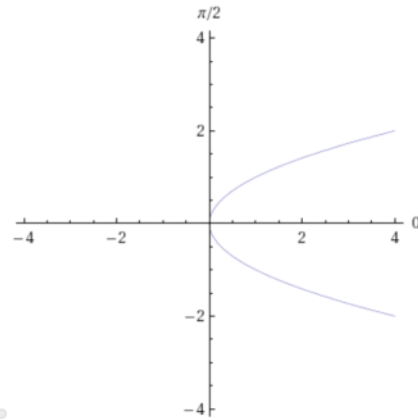
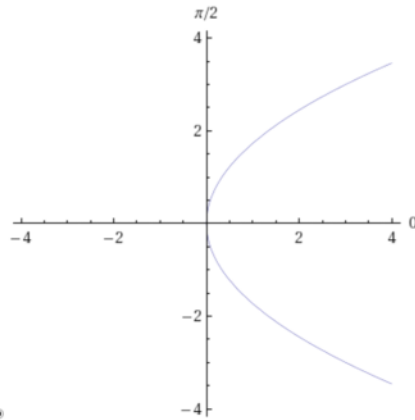
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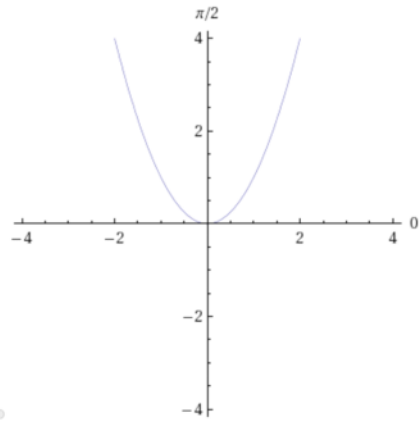
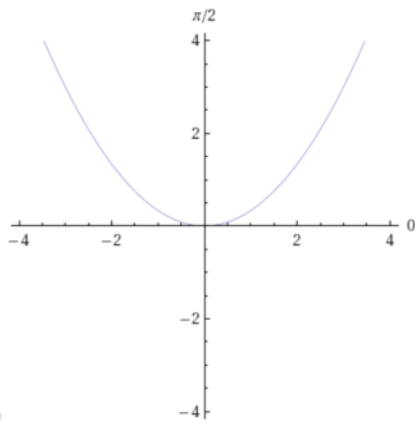
12.3/3 points | [Previous Answers](#) LarCalc9 10.4.035.

Convert the rectangular equation to polar form and sketch its graph.

$$y^2 = 3x$$

✓ $r = 3 \csc^2(\theta) \cos(\theta)$



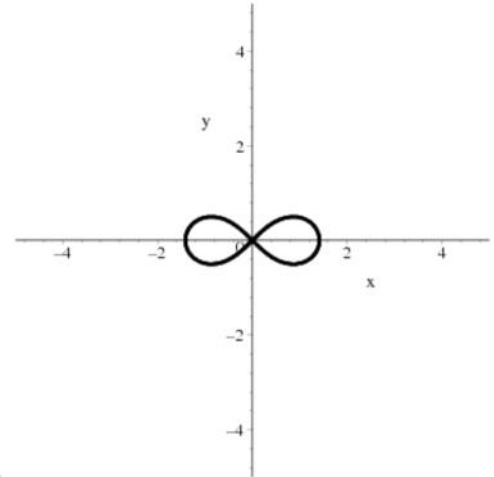
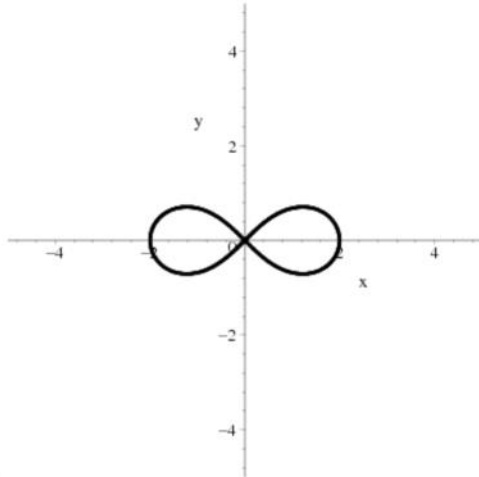


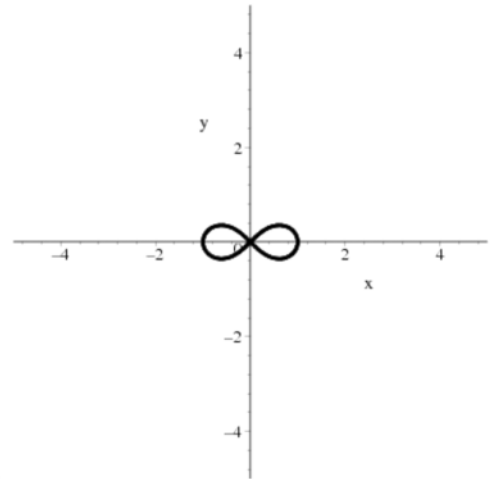
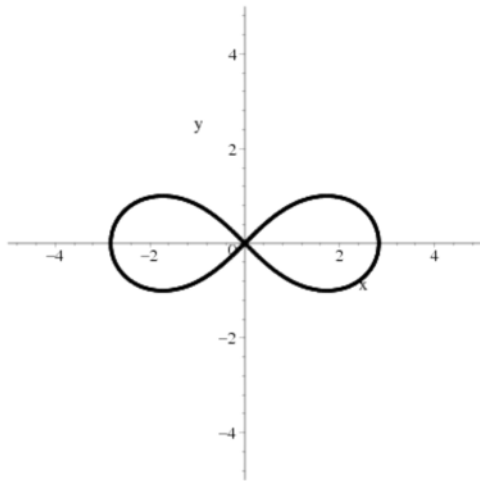
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13.3.5/3.5 points | [Previous Answers](#) LarCalc9 10.4.036.

Convert the rectangular equation to polar form and sketch its graph.

$$(x^2 + y^2)^2 - 4(x^2 - y^2) = 0$$



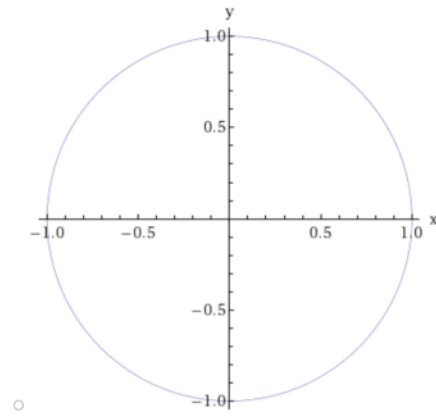
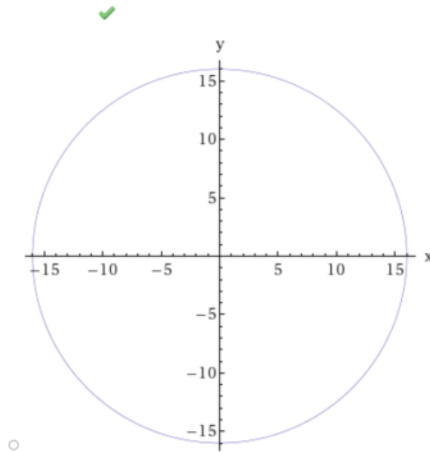


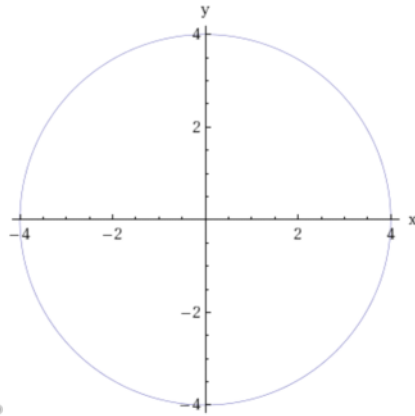
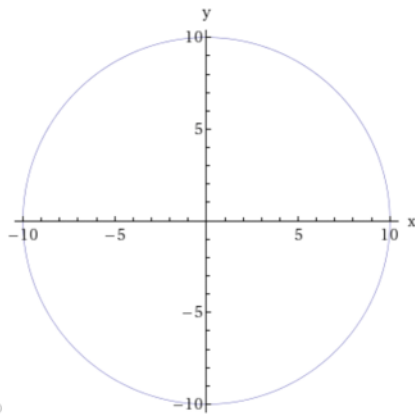
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14.2/2 points | [Previous Answers](#) LarCalc9 10.4.038.

Convert the polar equation to rectangular form and sketch its graph. (Select the correct graph.)

$$r = -4$$





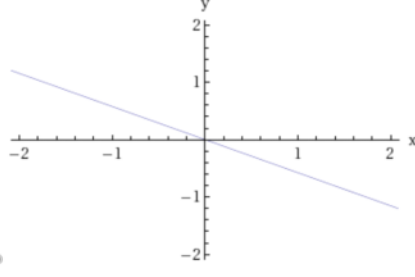
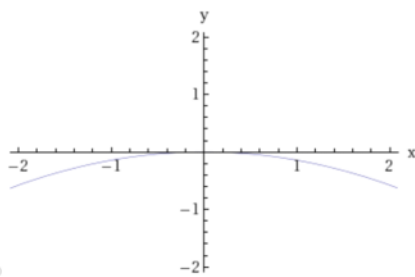
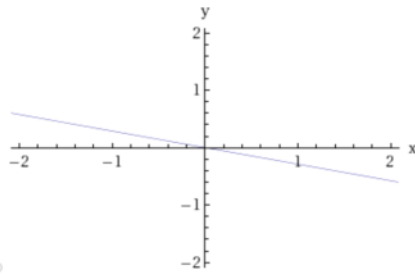
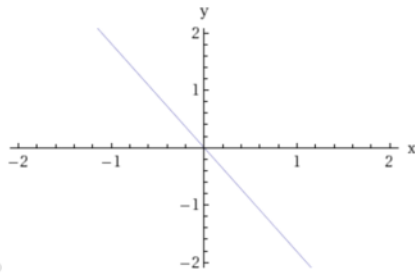
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15.3/3 points | [Previous Answers](#)LarCalc9 10.4.042.

Convert the polar equation to rectangular form and sketch its graph.

$$\theta = \frac{5\pi}{6}$$

✓ $y = -\frac{1}{3} \cdot 3^{\frac{1}{2}} \cdot x$

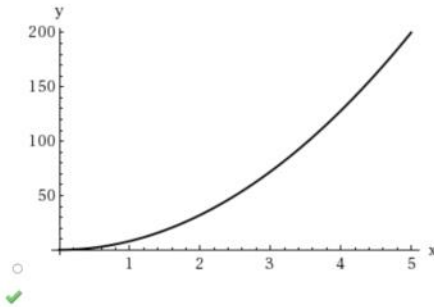
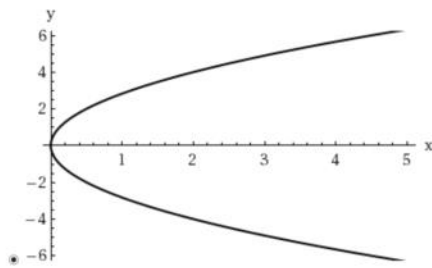
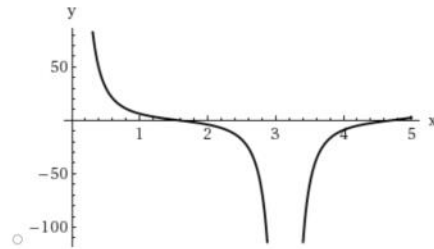
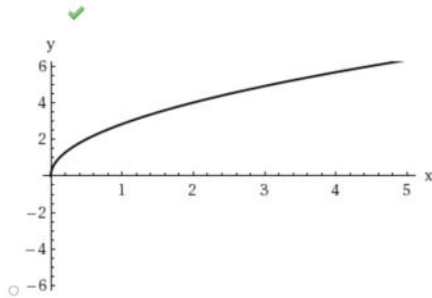


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16.3/3 points | [Previous Answers](#) LarCalc9 10.4.046.MI.

Convert the polar equation to rectangular form and sketch its graph.

$$r = 8 \cot(\theta) \csc(\theta)$$

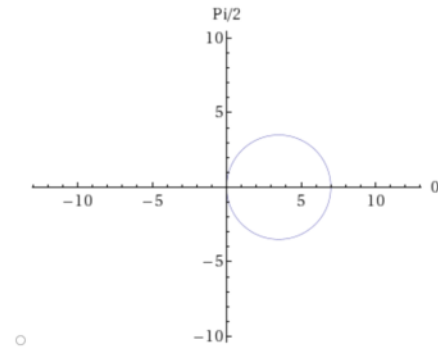
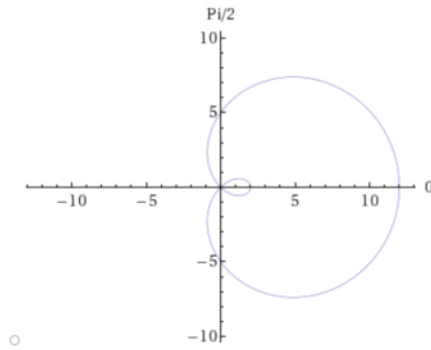


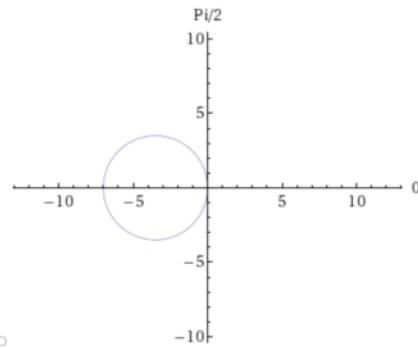
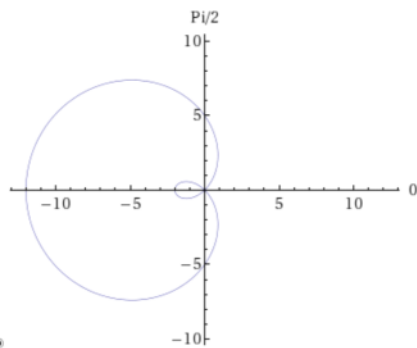
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17.4/4 points | [Previous Answers](#) LarCalc9 10.4.047.

Use a graphing utility to graph the polar equation.

$$r = 5 - 7 \cos(\theta)$$





Find an interval for θ over which the graph is traced *only once*.

- $0 \leq \theta < \pi$
- $0 \leq \theta < 4\pi/3$
- $0 \leq \theta < 2\pi$
- $0 \leq \theta < 4\pi$
- $0 \leq \theta < 3\pi$
- $0 \leq \theta < \pi/2$

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18.4/4 points | [Previous Answers](#) LarCalc9 10.4.057.

Convert the equation shown below to rectangular form and verify that it is the equation of a circle.

$$r = 2(h \cos(\theta) + k \sin(\theta))$$

Find the radius and the rectangular coordinates of the center of the circle.

radius



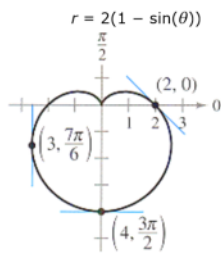
center $(x, y) = ($



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19.7/7 points | [Previous Answers](#) LarCalc9 10.4.064.

Find dy/dx and the slopes of the tangent lines shown on the graph of the polar equation. (If an answer does not exist, enter DNE.)



$\frac{dy}{dx} =$

at $(2, 0)$ $\frac{dy}{dx} = -1$ ✓

at $(3, \frac{7\pi}{6})$ $\frac{dy}{dx} = \text{DNE}$ ✓

at $(4, \frac{3\pi}{2})$ $\frac{dy}{dx} = 0$ ✓

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20.6/6 points | [Previous Answers](#) LarCalc9 10.4.070.

Find the points of horizontal tangency (if any) to the polar curve.

$r = a \sin(\theta) \quad 0 \leq \theta < \pi$

$(r, \theta) = (0, 0)$ (smaller r value) ✓

$(r, \theta) =$ (larger r value) ✓

Find the points of vertical tangency (if any) to the polar curve.

$(r, \theta) = (\frac{1}{2} \cdot a \cdot 2^{\frac{1}{2}}, \frac{1}{4} \cdot \pi)$ (smaller θ value) ✓

$(r, \theta) = (\frac{1}{2} \cdot a \cdot 2^{\frac{1}{2}}, \frac{3}{4} \cdot \pi)$ (larger θ value) ✓

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9.4

Friday, April 24, 2015 3:20 PM

WebAssign
Section 9.4 (Homework)John Putkey
MATH 2414 - CALCULUS II - CRN 46148 - SPRING 2015, Spring 2015
Instructor: Jaime Hernandez**Current Score** : 13 / 50**Due** : Monday, May 4 2015 11:00 AM CDT1. 2/2 points | [Previous Answers](#)LarCalc9 9.4.003.

Use the Direct Comparison Test to determine the convergence or divergence of the series.

$$\sum_{n=1}^{\infty} \frac{1}{n^2 + 8}$$

$$\frac{1}{n^2 + 8} <$$
 ✓



- converges
- diverges

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2. 2/2 points | [Previous Answers](#)LarCalc9 9.4.004.

Use the Direct Comparison Test to determine the convergence or divergence of the series.

$$\sum_{n=1}^{\infty} \frac{1}{3n^5 + 4}$$

$$\frac{1}{3n^5 + 4} <$$



converges

diverges



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3. 2/2 points | [Previous Answers](#)LarCalc9 9.4.006.

Use the Direct Comparison Test to determine the convergence or divergence of the series.

$$\sum_{n=2}^{\infty} \frac{1}{\sqrt[3]{n} - 1}$$

$$\frac{1}{\sqrt[3]{n} - 1} >$$



converges

diverges



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4. 2/2 points | [Previous Answers](#)LarCalc9 9.4.008.

Use the Direct Comparison Test to determine the convergence or divergence of the series.

$$\sum_{n=0}^{\infty} \frac{8^n}{9^n + 2}$$

$$\frac{8^n}{9^n + 2} <$$



- converges
- diverges



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5. 2/2 points | [Previous Answers](#)LarCalc9 9.4.009.

Use the Direct Comparison Test to determine the convergence or divergence of the series.

$$\sum_{n=2}^{\infty} \frac{\ln n}{n + 6}$$

$$\frac{\ln n}{n + 6} >$$



- converges
- diverges



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6. 3/3 points | [Previous Answers](#)LarCalc9 9.4.011.

Use the Direct Comparison Test to determine the convergence or divergence of the series.

$$\sum_{n=0}^{\infty} \frac{1}{n!}$$

$$\frac{1}{n!} <$$



converges

diverges



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7. -2 pointsLarCalc9 9.4.014.

Use the Direct Comparison Test to determine the convergence or divergence of the series.

$$\sum_{n=1}^{\infty} \frac{3^n}{2^n - 1}$$

$$\frac{3^n}{2^n - 1} ?$$

converges

diverges

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8. -/2 pointsLarCalc9 9.4.016.MI.

Use the Limit Comparison Test to determine the convergence or divergence of the series.

$$\sum_{n=1}^{\infty} \frac{7}{4^n + 1}$$
$$\lim_{n \rightarrow \infty} \frac{\frac{7}{4^n + 1}}{\frac{7}{4^n + 1}} = L > 0$$

- converges
- diverges

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9. -/2 pointsLarCalc9 9.4.017.

Use the Limit Comparison Test to determine the convergence or divergence of the series.

$$\sum_{n=0}^{\infty} \frac{1}{\sqrt{n^2 + 8}}$$
$$\lim_{n \rightarrow \infty} \frac{\frac{1}{\sqrt{n^2 + 8}}}{\frac{1}{\sqrt{n^2 + 8}}} = L > 0$$

- converges
- diverges

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10. -/2 points LarCalc9 9.4.018.

Use the Limit Comparison Test to determine the convergence or divergence of the series.

$$\sum_{n=1}^{\infty} \frac{8^n + 1}{9^n + 1}$$
$$\lim_{n \rightarrow \infty} \frac{\frac{8^n + 1}{9^n + 1}}{\frac{8^n + 1}{9^n + 1}} = L > 0$$

- converges
- diverges

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11. -/2 points LarCalc9 9.4.020.

Use the Limit Comparison Test to determine the convergence or divergence of the series.

$$\sum_{n=1}^{\infty} \frac{n + 6}{n^3 - 5n + 7}$$
$$\lim_{n \rightarrow \infty} \frac{\frac{n + 6}{n^3 - 5n + 7}}{\frac{n + 6}{n^3 - 5n + 7}} = L > 0$$

- converges
- diverges

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12. -/2 points LarCalc9 9.4.022.MI.

Use the Limit Comparison Test to determine the convergence or divergence of the series.

$$\lim_{n \rightarrow \infty} \frac{\sum_{n=1}^{\infty} \frac{1}{n^6(n+7)}}{\frac{1}{n^6(n+7)}} = L > 0$$

- converges
- diverges

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13. -/2 points LarCalc9 9.4.023.

Use the Limit Comparison Test to determine the convergence or divergence of the series.

$$\lim_{n \rightarrow \infty} \frac{\sum_{n=1}^{\infty} \frac{1}{n\sqrt{n^6+8}}}{\frac{1}{n\sqrt{n^6+8}}} = L > 0$$

- converges
- diverges

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14. -/3 points LarCalc9 9.4.025.MI.

Use the Limit Comparison Test to determine the convergence or divergence of the series.

$$\sum_{n=1}^{\infty} \frac{n^k - 1}{n^k + 9}, \quad k > 2$$
$$\lim_{n \rightarrow \infty} \frac{\frac{n^k - 1}{n^k + 9}}{\frac{n^k - 1}{n^k + 9}} = L > 0$$

- converges
- diverges

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15. -/2 points LarCalc9 9.4.027.

Use the Limit Comparison Test to determine the convergence or divergence of the series.

$$\sum_{n=1}^{\infty} \sin\left(\frac{1}{n}\right)$$
$$\lim_{n \rightarrow \infty} \frac{\sin\left(\frac{1}{n}\right)}{\sin\left(\frac{1}{n}\right)} = L > 0$$

- converges
- diverges

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16. -/2 points LarCalc9 9.4.028.

Use the Limit Comparison Test to determine the convergence or divergence of the series.

$$\lim_{n \rightarrow \infty} \frac{\sum_{n=1}^{\infty} \tan\left(\frac{1}{n}\right)}{\tan\left(\frac{1}{n}\right)} = L > 0$$

- converges
- diverges

Need Help?

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[Chat About It](#)

17. -/2 points LarCalc9 9.4.032.

Test for convergence or divergence, using one of the tests listed below.

$$\sum_{n=6}^{\infty} \frac{1}{n^3 - 125}$$

- converges
- diverges

Identify which test you used. (There is more than one correct answer, but you need select only one.)

- n th-Term Test
- Geometric Series Test
- p -Series Test
- Telescoping Series Test
- Integral Test
- Direct Comparison Test
- Limit Comparison Test

Need Help?

Read It

Chat About It

18. -/3 points LarCalc9 9.4.034.

Test for convergence or divergence, using one of the tests listed below.

$$\sum_{n=1}^{\infty} \left(\frac{1}{n+1} - \frac{1}{n+2} \right)$$

- converges
- diverges

Identify which test you used. (There is more than one correct answer, but you need select only one.)

- n th-Term Test
- Geometric Series Test
- p -Series Test
- Telescoping Series Test
- Integral Test
- Direct Comparison Test
- Limit Comparison Test

Need Help?

Read It

Chat About It

19. -/3 points LarCalc9 9.4.036.

Test for convergence or divergence, using one of the tests listed below.

$$\sum_{n=1}^{\infty} \frac{5}{n(n+5)}$$

- converges
- diverges

Identify which test you used. (There is more than one correct answer, but you need select only one.)

- n th-Term Test
- Geometric Series Test
- p -Series Test
- Telescoping Series Test
- Integral Test
- Direct Comparison Test
- Limit Comparison Test

Need Help?

Read It

Chat About It

20. -/1 points LarCalc9 9.4.041.

If $P(n)$ and $Q(n)$ are polynomials of degree j and k , respectively, then the series

$$\sum_{n=1}^{\infty} \frac{P(n)}{Q(n)}$$

converges if $j < k - 1$ and diverges if $j \geq k - 1$.

Use the polynomial test given above to determine whether the series converges or diverges.

$$\sum_{n=1}^{\infty} \frac{1}{n^4 + 1}$$

- converges
- diverges

Need Help?

Read It

Chat About It

21. -/1 points LarCalc9 9.4.042.

If $P(n)$ and $Q(n)$ are polynomials of degree j and k , respectively, then the series

$$\sum_{n=1}^{\infty} \frac{P(n)}{Q(n)}$$

converges if $j < k - 1$ and diverges if $j \geq k - 1$.

Use the polynomial test given above to determine whether the series converges or diverges.

$$\sum_{n=1}^{\infty} \frac{n^3}{n^4 + 1}$$

- converges
- diverges

Need Help?

Read It

Chat About It

22. -/2 points LarCalc9 9.4.039.

If $P(n)$ and $Q(n)$ are polynomials of degree j and k , respectively, then the series

$$\sum_{n=1}^{\infty} \frac{P(n)}{Q(n)}$$

converges if $j < k - 1$ and diverges if $j \geq k - 1$.

Use the polynomial test above to determine whether the series converges or diverges.

$$\frac{1}{2} + \frac{2}{5} + \frac{3}{10} + \frac{4}{17} + \frac{5}{26} + \dots$$

- converges
 diverges

Need Help?

Read It

Chat About It

23. -/2 points LarCalc9 9.4.045.

Determine the convergence or divergence of the series.

$$\frac{1}{800} + \frac{1}{1600} + \frac{1}{2400} + \frac{1}{3200} + \dots$$

- converges
 diverges

Need Help?

Read It

Watch It

Chat About It

24. -/2 points LarCalc9 9.4.047.

Determine the convergence or divergence of the series.

$$\frac{1}{401} + \frac{1}{404} + \frac{1}{409} + \frac{1}{416} + \dots$$

- converges
 diverges

Need Help?

Read It

Watch It

Chat About It

Printout

Monday, April 27, 2015 5:07 PM

WebAssign
Getting Started with WebAssign (Homework)

John Putkey
MATH 2414 - CALCULUS II - CRN 46148 - SPRING 2015, Spring 2015
Instructor: Jaime Hernandez

Current Score : 25 / 25 Due : Monday, March 2 2015 11:00 AM CST

The due date for this assignment is past. Your work can be viewed below, but no changes can be made.

Important! Before you view the answer key, decide whether or not you plan to request an extension. Your Instructor may *not* grant you an extension if you have viewed the answer key. Automatic extensions are not granted if you have viewed the answer key.

[View Key](#)

1. 1/1 points | [Previous Answers](#)GettingStartedP2 1.1.001.MC.

Multiple-Choice Exercise: Option Buttons

Select your response by clicking one of the option buttons. To change your answer, click another option button. To have WebAssign grade your answer, click **Submit Answer**. A mark is displayed to indicate whether your answer was correct.

Select the option called 'This is the correct answer.'

- This is the correct answer.
- This answer is incorrect.
- This answer is incorrect.



Correct!

For more information, see the [Help System](#).

2. 1/1 points | [Previous Answers](#)GettingStartedP2 1.1.002.MC.

Multiple-Choice Exercise: Drop-Down Menus

Select your response by choosing an answer from the drop-down list. To change your answer, select another one. To have WebAssign grade your answer, click **Submit Answer**. A mark is displayed to indicate whether your answer was correct.

Select the answer called 'correct.'

This answer is the answer.



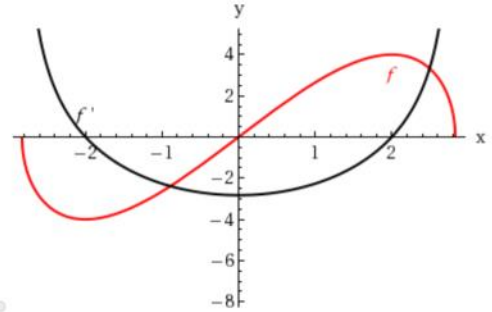
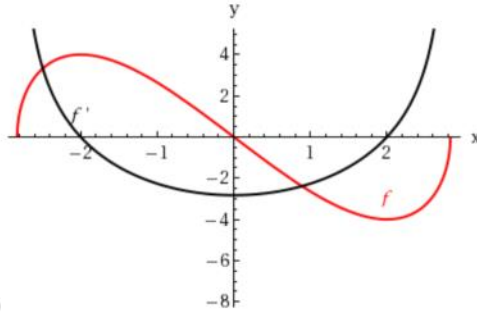
Correct!

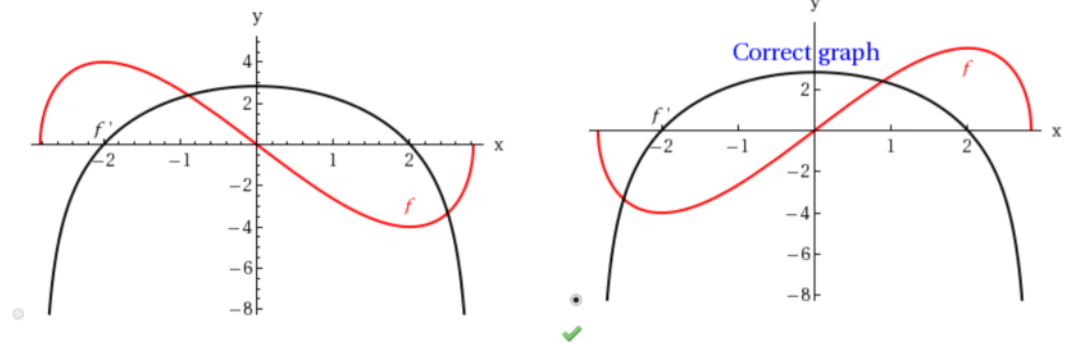
For more information, see the [Help System](#).

3. 1/1 points | [Previous Answers](#) GettingStartedP2 1.1.003.MC_graphs.

Multiple-Choice Question: Selecting An Image

This multiple-choice question uses images as the options next to the option buttons. Select the image containing the text 'Correct graph'.





Your answer is correct.

For more information, see the [Help System](#)

4. 1/1 points | [Previous Answers](#) GettingStartedP2 1.1.004.numerical.

Answering Numerical Questions

Numerical questions require you to enter a number. Type the correct answer into the answer box. To have WebAssign grade your answer, click **Submit Answer**. A mark is displayed to indicate whether your answer was correct.

$1 + 1 =$ ✓

Correct!

When you clicked the answer box, did you notice the answer format tip displayed under the answer box? If enabled by your instructor, answer format tips are displayed for some answer boxes to help you know what kind of answer is expected — in this case, an exact number.

For more information, see the [Help System](#).

5. 1/1 points | [Previous Answers](#)GettingStartedP2 1.1.005.mathPad.


Answering mathPad Questions


WebAssign mathPad questions are displayed with a rectangular answer box similar to answer boxes used for other question types. When you click a mathPad answer box, the mathPad palette opens so you can enter a correctly formatted mathematical expression.

This exercise requires you to enter a mathematical expression. Your answer should be:

$$\sqrt{x}$$

To enter this answer:

1. Click the answer box to open the mathPad palette.
2. Click the  button in the palette.
3. Type x
4. Submit your answer.


Your answer is correct.

To answer this question, you can either click the mathPad buttons or type out the answer. Try reentering your answer using the keyboard. In this case, you would type: `sqrt(x)`

For more information, click the help link on the mathPad palette.

6. 1/1 points | [Previous Answers](#)GettingStartedP2 1.1.006.mathPad.

Entering Variables And Symbols With mathPad

In mathematics, expressions are case-sensitive: $3x$ is not the same as $3X$. WebAssign follows these rules. You can enter symbols by using the palette that appears when you click inside the answer box.

This exercise requires you to enter a mathematical expression.

Enter $D + p + \pi$

To enter this answer:

1. Click the answer box to open the mathPad palette.
2. Type $D + p +$
3. Click **Symbols** in the palette.
4. Click on the symbol π that appears beneath **Symbols**.
5. Submit your answer.


Correct!

You can also enter your answer directly instead of using the palette. Try typing 'pi' in the answer box. Notice how the symbol is displayed in the answer box after 'pi' is entered.

For more information, click **Help** on the mathPad palette.

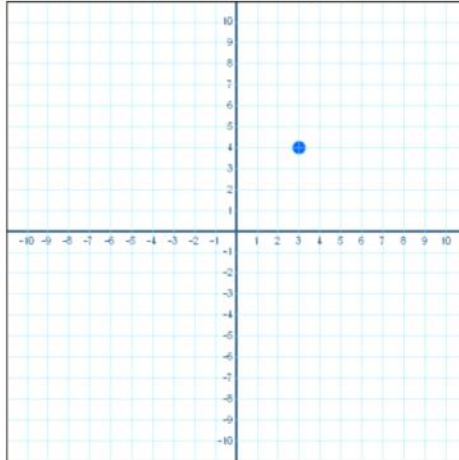
7. 1/1 points | [Previous Answers](#)GettingStartedP2 1.1.007.graphing.

Plotting Points

Some graphing questions require you to plot points on a set of coordinate axes. To plot a point:

1. Click the Point tool.
2. Click a location in the graph.

In this exercise, you will plot a single point. Your answer should look like this:



Plot the point (3, 4).

[Submission Data](#)

Your answer is correct.

You can examine the text based version of your submission by clicking on the [Submission Data](#) link that appears below the Graphing tool. For more information, click the help link on the Graphing tool.

8. 1/1 points | [Previous Answers](#)GettingStartedP2 1.1.008.numberline.

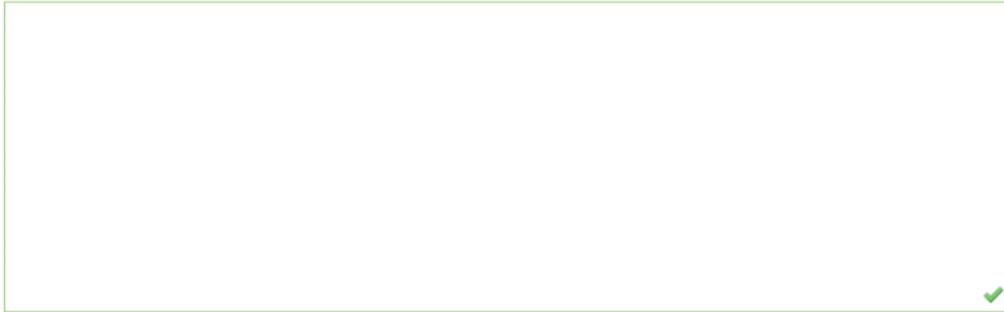
Plotting On A Number Line

Some graphing questions require you to plot objects on a number line. To plot a point:

1. Click the Select tool.
2. Click and drag the closed circle symbol to the correct location on the number line.
3. Submit your answer.

In this exercise, you will plot a single point. Your answer should look like this:

Plot a point at -2.5 .



Your answer is correct.

Placing points can be tricky, so the NumberLine tool always counts your answer correct if it is reasonably close to the exact position. For more information, click the help link on the NumberLine tool.

9. 1/1 points | [Previous Answers](#)GettingStartedP2 1.1.009.numberline.

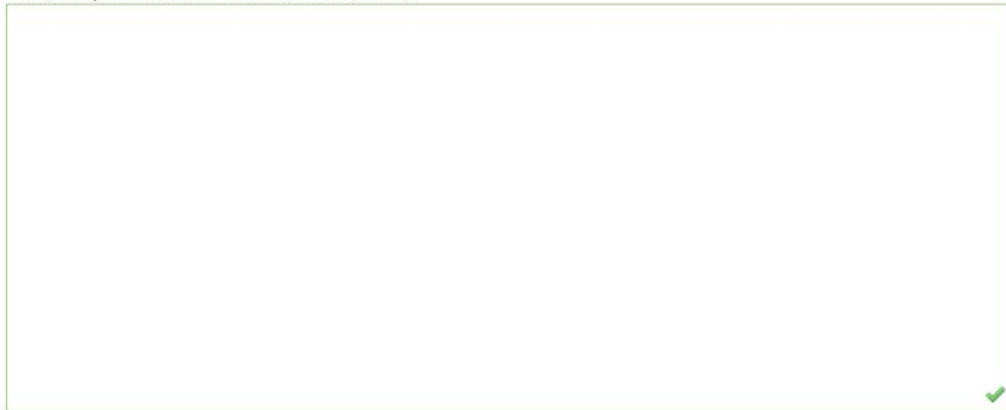
Plotting On A Number Line

Some graphing questions require you to plot labeled points on a number line. To plot a labeled point:

1. Click the Select tool.
2. Click and drag the labeled point from above the number line to its correct location on the number line.
3. Submit your answer.

In this exercise, you will place a single point. Your answer should look like this:

Place the point labeled -3 on the number line.



Your answer is correct.

Placing points exactly can be tricky, so the NumberLine tool always counts your answer correct if it is reasonably close to the exact position. For more information, click the help link on the NumberLine tool.

10.3/3 points | [Previous Answers](#) GettingStartedP2 1.1.010.tutorial.

Tutorial Questions

Tutorial questions help you learn by breaking down complicated concepts or procedures into steps.

Each step must be completed sequentially. Most tutorials let you skip a step if you do not understand it, but you do not receive points for the skipped part, and you cannot go back to the skipped part to answer it later.

Tutorial

Add.

$$2 + 3 + 4$$

Part 1 of 3

Answer each part of a tutorial questions in order. Enter the correct answer in the answer box, and then click **Submit**.

To find the sum, first add 2 + 3.

$$(2 + 3) + 4 = \boxed{5} \checkmark + 4$$

Part 2 of 3

If you cannot answer a tutorial part correctly, most tutorials let you skip to the next part. (Click **Skip** instead of submitting this answer.)

Remember that you receive no points for skipped parts, and you cannot come back to answer a skipped part later.

$$\text{Now add the remaining integers. } (5) + 4 = \boxed{9} \checkmark$$

Part 3 of 3

After you answer or skip a tutorial part, the answer key for that part is displayed and you cannot change your answer. To complete the tutorial, enter the final answer.

$$2 + 3 + 4 = \boxed{9} \checkmark$$

You have now completed the tutorial.

For more information, see the [Help System](#)

11.2/2 points | [Previous Answers](#) GettingStartedP2 1.1.011.numerical.mathPad.

Rounded and Exact Answers in Mathematics Questions

If there are no rounding instructions given in a question, then an exact answer is expected. In these cases, do not round or use decimal approximations. For example, do not enter 1.66 when you can enter $\frac{5}{3}$.

This exercise requires you to enter a mathematical expression. Your answer should be:

$\frac{25}{7}$
 ✓


Your answer is correct.

Remember that you should only round your response when instructed.

This exercise requires you to enter a mathematical expression. Your answer should be:

$\sqrt{2}$

To enter this answer:

1. Click the answer box to open the calcPad palette.
2. Click  in the palette.
3. Type 2

4. Submit your answer.



Your answer is correct.

Remember that you should only round your response when instructed.

For more information, click the help link on the mathPad palette.

12.1/1 points | [Previous Answers](#) GettingStartedP2 1.1.012.mathPad.

Differentiating Standard and Greek Letters

WebAssign's mathPad can be used to enter many different symbols and variables including standard upper and lower case letters or upper and lower case Greek letters. If a standard letter is required, then enter it by using the keyboard. If a Greek letter is required, then enter it by using the Greek buttons in the mathPad. The buttons for Greek letters can be found by clicking on **Greek** in the palette. Some of these letters look similar, so it is important to understand that they are different. For example, compare the symbols below. The symbol on the left is the lower case Greek letter beta.

β B

Questions in WebAssign are more likely to use standard letters as variables or symbols unless the specific topic traditionally uses a Greek letter. For example, the Greek letter ρ (rho) is often used to represent density.

This exercise requires you to enter a mathematical expression. Your answer should be:

$\varepsilon + b$



Your answer is correct.

Remember to closely examine the type of characters in the given information and your response.

For more information, click the help link on the mathPad palette.

13.1/1 points | [Previous Answers](#)GettingStartedP2 1.1.013.mathPad.


Navigating mathPad notation

WebAssign's mathPad can be used to enter square root symbols, exponents, and other special notation. When you create a square root symbol, exponent, absolute value, subscript, or other type of notation, then your cursor will remain in that notation until you use the arrows on the keyboard or the mouse to move out of that location. For example, if you do not move out of a root symbol, then any subsequent portion of your response will also exist under the root symbol.

This exercise requires you to enter a mathematical expression. Your answer should be:

$$\sqrt{x + 1} + 1$$

To enter this answer:

1. Click the answer box to open the mathPad palette.
2. Click  in the palette.
3. Type $x + 1$
4. Press the right arrow on the keyboard once to move out of the square root sign.
5. Type $+ 1$
6. Submit your answer.

 Your answer is correct.

To answer this question, you can type out the majority of your answer but you must use the arrow keys or mouse to move out of the square root sign.

For more information, click the help link on the mathPad palette.

14.1/1 points | [Previous Answers](#)GettingStartedP2 1.1.014.mathPad.

Answering mathPad Questions with Trigonometric functions that require the degrees symbol

WebAssign's mathPad can be used to enter trigonometric functions. Many questions in WebAssign expect that the argument of the trigonometric function will be in radians, but some questions require degrees. Entering the degrees symbol requires the button in the mathPad. Remember that the safest way to ensure that your answer is interpreted as you intended is by using parentheses around the argument of your function.

This exercise requires you to enter a mathematical expression. Your answer should be:

$$\sin(80^\circ)$$

To enter this answer:

1. Click the answer box to open the mathPad palette.
2. Type $\sin(80$
3. Click **Symbols** in the palette.
4. Click on the button that appears for the degrees symbol.
5. Type $)$
6. Submit your answer.

 Your answer is correct.

To answer this question you can type out the majority of your answer but you must use the mathPad button for the degrees symbol.

For more information, click the help link on the mathPad palette.

15.1/1 points | [Previous Answers](#) GettingStartedP2 1.1.015.mathPad.

Answering mathPad Questions with Trigonometric or Logarithmic functions

WebAssign's mathPad can be used to enter trigonometric or logarithmic functions. If you omit parentheses, spaces are used to help determine the argument of the function and your answer might not be graded as you expect. For example:

$\log 3x$ is graded as $\log(3) \cdot x$

$\log 3x$ is graded as $\log(3x)$

Using parentheses is the safest method to ensure that your response is interpreted as you intended.

This exercise requires you to enter a mathematical expression. Use the keyboard to type your response. Your answer should be:

$\log(6t) \ln(7t)$



Your answer is correct.

You can type directly in the answer blank or use buttons from the mathPad to enter functions such as \log , \sin , \cos , and so on. Use parentheses around the arguments of functions.

For more information, click the help link on the mathPad palette.

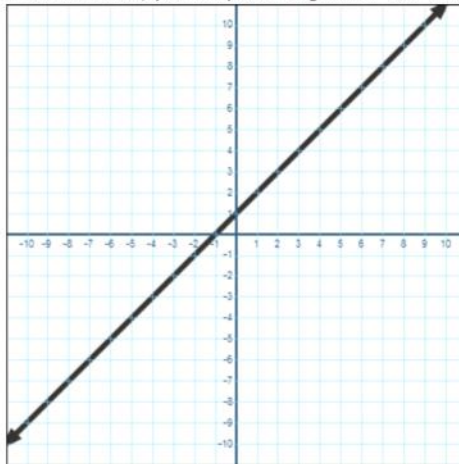
16.1/1 points | [Previous Answers](#) GettingStartedP2 1.1.016.graphing.

Plotting a Line

Some graphing questions require you to plot a line on a set of coordinate axes. To plot a line:

1. Click the Line tool.
2. Click a location in the graph that is on the line you intend to create.
3. Click a different location in the graph that is also on the line you intend to create.

In this exercise, you will plot a single line. Your answer should look like this:



Plot the line that passes through the points $(0, 1)$ and $(1, 2)$.



Your answer is correct.

You can examine the text based version of your submission by clicking on the Submission Data link that appears below the

Graphing tool. For more information, click the help link on the Graphing tool.

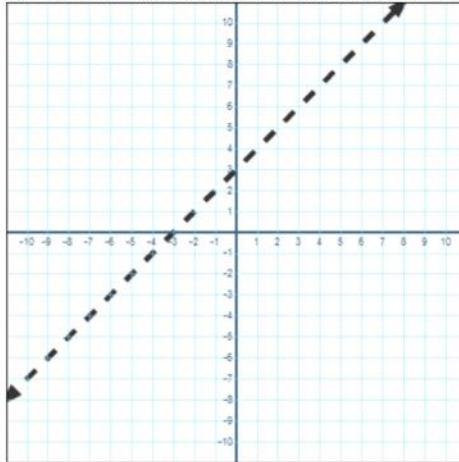
17.1/1 points | [Previous Answers](#) Getting Started P2 1.1.017.graphing.

Plotting a Dashed Line

Some graphing questions require you to plot a dashed line on a set of coordinate axes. To plot a dashed line:

1. Click the Line tool.
2. Click a location in the graph that is on the line you intend to create.
3. Click a different location in the graph that is also on the line you intend to create.
4. Click the Dash tool to specify that the line you have created is a dashed line.

In this exercise, you will plot a single dashed line. Your answer should look like this:



Plot the dashed line that passes through the points $(0, 3)$ and $(2, 5)$.



[Submission Data](#)

Your answer is correct.

You can examine the text based version of your submission by clicking on the Submission Data link that appears below the Graphing tool. For more information, click the help link on the Graphing tool.

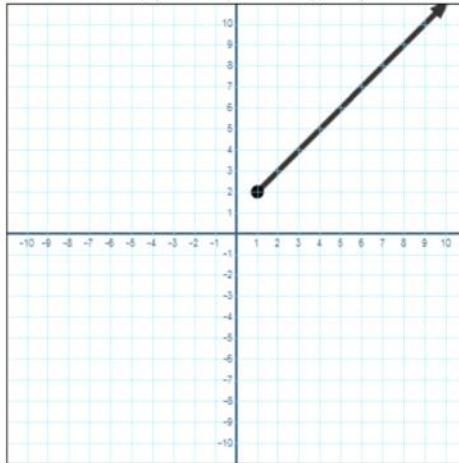
18.1/1 points | [Previous Answers](#) GettingStartedP2 1.1.018.graphing.

Plotting a Ray

Some graphing questions require you to plot a ray on a set of coordinate axes. The origin of a ray can be open or closed. To plot a ray:

1. Click the arrow to the right of the Line tool. This will open up two new options.
2. Click on the Ray tool.
3. Click a location in the graph that is the origin of the ray you intend to create.
4. Click a different location in the graph that is also on the ray you intend to create.

In this exercise, you will plot a single ray. Your answer should look like this:



Plot the ray that begins at the closed point (1, 2) and passes through the point (3, 4).

[Submission Data](#)



Your answer is correct.

You can examine the text based version of your submission by clicking on the Submission Data link that appears below the Graphing tool. For more information, click the help link on the Graphing tool.

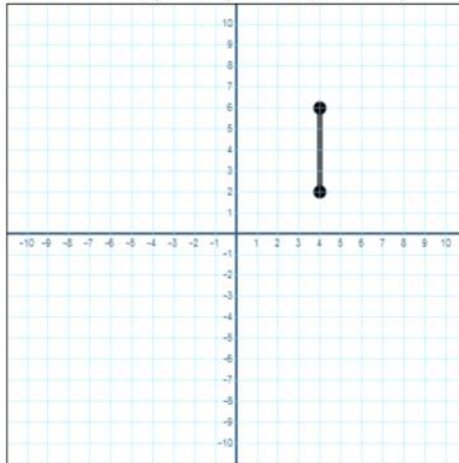
19.1/1 points | [Previous Answers](#) GettingStartedP2 1.1.019.graphing.

Plotting a Line Segment

Some graphing questions require you to plot a line segment on a set of coordinate axes. The endpoints of a line segment can be open or closed. To plot a line segment:

1. Click the arrow to the right of the Line tool. This will open up two new options.
2. Click on the Line Segment tool.
3. Click a location in the graph that is one of the endpoints of the line segment you intend to create.
4. Click a different location in the graph that is the other endpoint of the line segment you intend to create.

In this exercise, you will plot a single line segment. Your answer should look like this:



Plot the line segment with closed endpoints at $(4, 6)$ and $(4, 2)$.



[Submission Data](#)

Your answer is correct.

You can examine the text based version of your submission by clicking on the Submission Data link that appears below the Graphing tool. For more information, click the help link on the Graphing tool.

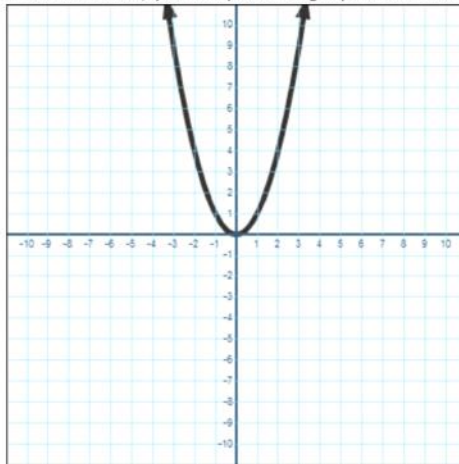
20.1/1 points | [Previous Answers](#) GettingStartedP2 1.1.020.graphing.

Plotting a Parabola

Some graphing questions require you to plot a parabola on a set of coordinate axes. To plot a parabola:

1. Click the Parabola tool.
2. Click a location in the graph that is the vertex of the parabola that you intend to create.
3. Click a different location in the graph that is on the parabola that you intend to create.

In this exercise, you will plot a single parabola. Your answer should look like this:



Plot the parabola with a vertex at $(0, 0)$ that passes through the point $(2, 4)$.



Your answer is correct.

You can examine the text based version of your submission by clicking on the Submission Data link that appears below the

Graphing tool. For more information, click the help link on the Graphing tool.

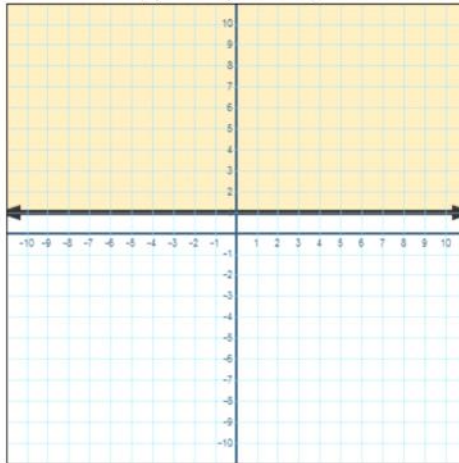
21.1/1 points | [Previous Answers](#) GettingStartedP2 1.1.021.graphing.

Plotting a Region

Some graphing questions require you to plot a region on a set of coordinate axes. To plot a region:

1. Use the appropriate tools to define your region. For example, use the Line tool to create a lower bound for the region.
2. Click on the Fill tool.
3. Click on the location that you wish to define as the region. The point you select will fill the graph in all directions until it encounters another object like a line or parabola. Be sure that you do not click the Fill tool on lines, parabolas, or other objects that you have defined.

In this exercise, you will plot a single line and a single region. Your answer should look like this:



Plot the line that passes through the points $(1, 1)$ and $(2, 1)$. Fill the region above this line.



[Submission Data](#)



Your answer is correct.

You can examine the text based version of your submission by clicking on the Submission Data link that appears below the Graphing tool. For more information, click the help link on the Graphing tool.

22.1/1 points | [Previous Answers](#) GettingStartedP2 1.1.022.previous.

Using the Previous Answers Link

When you submit an answer to a question on an assignment, WebAssign will record your submission and score for that submission. You can view your previous answers for a particular question by using the Previous Answers link that appears near the top left of a question. The link is outlined in red in the image below.

The Previous Answers page displays all of the answers you have submitted for a question. This page only displays information, so you cannot change your answers in this page. Each of your submissions for the question is displayed in order, with the first submission at the top and the most recent submission at the bottom. Each submission also displays a header with the sequence number of the submission and the points earned. The date and time of the submission may also display depending on assignment settings. Look below for an example of what you can find in the Previous Answers page.

What did the student from the example image enter as their first submission to the question?

17 ✓

Correct!

The Previous Answers page records the answers you've tried previously and can guide your future answers.

For more information, see the [Help System](#).

Printout

Monday, April 27, 2015 5:09 PM

WebAssign

Entering Math Answers in WebAssign (Homework)

John Putkey

MATH 2414 - CALCULUS II - CRN 46148 - SPRING 2015, Spring 2015

Instructor: Jaime Hernandez

Current Score : 23 / 23 Due : Monday, March 2 2015 11:00 AM CST

The due date for this assignment is past. Your work can be viewed below, but no changes can be made.

Important! Before you view the answer key, decide whether or not you plan to request an extension. Your Instructor may *not* grant you an extension if you have viewed the answer key. Automatic extensions are not granted if you have viewed the answer key.

[View Key](#)1. 1/1 points | [Previous Answers](#)

Welcome to Enhanced WebAssign

Welcome to Enhanced WebAssign (EWA), an exciting and easy-to-use tool for learning and doing assignments online.

Once you get the hang of it, EWA will help you quickly understand your class lessons and do better on your homework. Once you get through the first easy steps and become comfortable with the system, you'll find yourself mastering your material more quickly and easily.

Just a few words of advice:

- If you have a multiple choice problem, **guessing will not help you learn.**
- Don't make a generalization based on one problem.
- Keep your book and notebook beside you when you do your homework. For each question, **use pencil and paper** to solve the problem, **showing all work.** Then enter your answer into the EWA system. This will enable you to **go back and look at your work** if you made a mistake.
- If your first answer is not correct, make every effort to **understand why** it is incorrect, before you change your answer.

To make your learning experience the best one possible, make this promise to yourself now: "No guessing!"

Do you promise? (Use the drop-down menu to select your answer.)



You will occasionally get a question in EWA that requires you to enter your answer using a drop-down menu like this.

2. 1/1 points | [Previous Answers](#)

Cautions

Sometimes you will be totally convinced that your answer is correct, even though EWA tells you it is wrong.

The EWA Tutorials have several ways for you to get help to decide if you are doing a problem incorrectly. When you begin your online homework, look for buttons like: "Read It", "Watch It", "Master It", or "Practice Another Version."

Check carefully for seemingly minor details like "[" instead of "(" or other input mistakes. In the precise language of mathematics, these are important details.

Also, check to make sure that you have entered your answer correctly. The following site has some common entry mistakes: [Syntax Errors](#).

If you have tried all of these tips and are still convinced you are right, it is also possible that there is a typo or error in EWA that nobody has caught yet. Go on to the next problem. At the end of your assignment, print your assignment and take it to your instructor. They will help you figure out where the mistake lies.

Your instructor is using EWA to make things easier for you. If something isn't working for you, see your instructor for help before you get frustrated.

When should you get help?

- Before I get frustrated.
- After I get frustrated.



3. 1/1 points | [Previous Answers](#)

Entering Simple Mathematical Answers

Some answers will be easy to enter and will only require the use of your keyboard to enter numbers, letters, or basic symbols.

Enter the following equation into the answer box using your keyboard. Begin by clicking inside the answer box. You'll see a toolbar appear; ignore it for now and just use your keyboard to enter the equation.

$y = 3$



4. 2/2 points | [Previous Answers](#)

Entering Mathematical Notation

Many questions in EWA will provide you with an answer box with a toolbar. (This toolbar is called the mathPad or calcPad depending on the course you are in, but you don't need to worry about that. You will get the appropriate toolbar for the course you are in.)

Begin by placing your cursor inside the answer box; the toolbar will appear on the left side of your screen.

The symbol buttons on the top are frequently-used operations such as fractions or square roots.

Now take a moment and try some of the buttons on the toolbar. For example, click the "Functions" menu button. Did you notice that when you selected it, the toolbar expanded to show more symbol buttons from which to choose?

Some symbol buttons have a small arrow to its right. In the "Greek" menu, click the arrow button to the right of the first group of buttons. Did you see the other Greek symbols appear? When you select these arrows buttons, related symbol buttons will expand to the right. You can click the arrow again to collapse the extra symbols.

Use the toolbar to input the following. Check the menus to find the symbols you need.

If you accidentally put something into the answer box that you do not want there put your cursor to the right of it and hit the backspace key on your keyboard.

$[-1, 0] \cup (4, \infty)$



$\beta + 3 < 7$



5. 1/1 points | [Previous Answers](#)

Equivalent Answers

EWA is designed to interpret and correctly grade equivalent mathematical expressions, although some problems may require a special form and not all equivalent forms can be correctly graded.

This problem can accept several equivalent forms of the correct answer. Choose one of the following equivalent expressions and enter it below.

$(x - 2)(x + 1)$

$(x + 1)(x - 2)$


$-(x + 1)(2 - x)$



6. 1/1 points | [Previous Answers](#)

Exponents

Here are two ways to enter exponents:

- **Using the keyboard:** Type x^2 , then use the right arrow to move the cursor out of the exponent.
- **Using the toolbar:** Type x , then click the exponent button: , type the exponent in the box. Use the right arrow to move the cursor out of the exponent.

If you place the wrong symbol in the answer box, highlight it and hit the delete button on the keyboard. The symbol will clear and you can start over.

Enter x^2 in two different ways, separating them by a comma. Notice that once you have completed inputting the answers, they will look the **same**.



7. 1/1 points | [Previous Answers](#)

More on Entering Exponents

Enter the following expression so that EWA will read it correctly.


$$x^3y(3x - 2xy^2)$$



8. 1/1 points | [Previous Answers](#)

Fractions

Here are two ways to input fractions in the form: $\frac{\text{numerator}}{\text{denominator}}$

- **Using the keyboard:** type numerator / denominator. For example, for the fraction $x/2$, type $x/2$. The answer box will automatically put it in the correct form. To move the cursor out of the fraction, use the right arrow on your keyboard.
- **Using the toolbar:** click on the  button, enter the numerator in the top box, use the down arrow to move the cursor to the bottom box and type the denominator, then use the right arrow to move the cursor out of the fraction.

It is important that if you are going to input information after the fraction that you use the right arrow key on your keyboard to move the cursor out of the fraction. You will see the cursor change size and position: when the cursor is within the fraction, it will be half-size and only on the top or bottom of the fraction; the right arrow key moves it outside of the fraction and it returns to full size.

Enter the following fractions using either your keyboard or the toolbar (that appears when you click in the answer box). Notice that these should look **different** when you are done.

$$\frac{3}{x+2}, \frac{3}{x} + 2$$



9. 1/1 points | [Previous Answers](#)

More on Entering Fractions

Input the following expression.

$$2 + \frac{x-3}{x+4} - 3$$

Remember that to move the cursor out of the fraction, you use the right arrow.



10. 1/1 points | [Previous Answers](#)

Square Roots

With square roots, $\sqrt{\quad}$, just like fractions, you use the right arrow key to move the cursor out of the square root symbol. Again, you will see the cursor change size and position - smaller when it's under the square root sign, and then larger when you use the right arrow to key to move it out from under the square root sign.

Use the toolbar and answer box to enter the following expressions. Begin by selecting $\sqrt{\quad}$. Separate the two expressions with a comma. As you enter these two expressions into the answer box, be sure that in the first one the x is inside the square root symbol and in the second the x is outside the square root symbol.

$$\sqrt{3x}$$

$$\sqrt{3}x$$



11. 1/1 points | [Previous Answers](#)

Review: Entering Exponents, Fractions, and Square Roots

Enter the following expression.

$$x^2 + \sqrt{3x} + \frac{3}{x+2} + 1$$

Remember to use the right arrow to move the cursor out of square roots, fractions, and exponents.



For more information on using the toolbar, [click here](#).

12.1/1 points | [Previous Answers](#)

Variables

In EWA, variable names are case-sensitive, so x is not the same as X .

Enter the following expression so that EWA will read it correctly.

$$18Y - 3x^2$$



13.1/1 points | [Previous Answers](#)

Ordered Pairs

Some questions will require you to answer with an ordered pair or ordered pairs. For example, you may be asked to provide the coordinate of a specific point on a graph so your answer might be something like the ordered pair answer provided here. Enter it in the answer box. Be sure to include the parentheses as part of your answer.

$(-5, 3)$



14.1/1 points | [Previous Answers](#)

Fill-in-the-blank Answers



Sometimes a problem uses a "fill in the blank" format, rather than the large answer box. In this case, symbols may be difficult to input, so you should read the directions carefully.


Type the formula $C = 2\pi r$, using the word "pi" for the symbol π and insert an asterisk between variables to represent multiplication.


15.1/1 points | [Previous Answers](#)

Using the Number Line


Some questions will ask you to draw an interval on a Number Line. Here are two ways to place the endpoints:

- Using the Select Tool, , place the first point (you will see a preview of the point as you move around the Number Line) and then select the type of endpoint you want to use (closed point, open point, parenthesis, bracket, etc.).
- Using the Endpoint Menu, , drag the desired endpoint onto the Number Line.

After placing the endpoints, select the Draw Tool, , and click on the desired interval of the Number Line. You will see a preview of the action as you move your mouse around the Number Line.

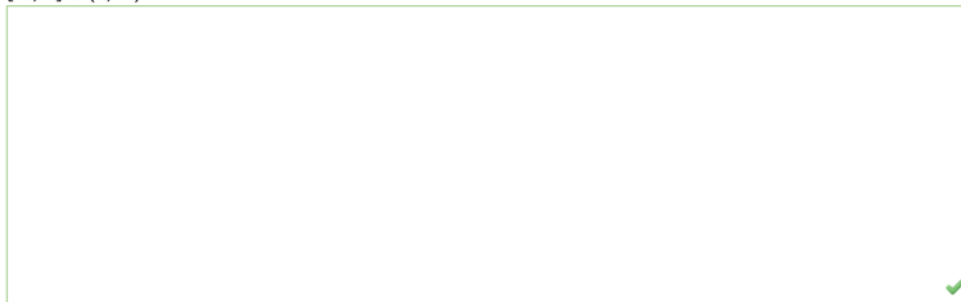
To move an endpoint, click the Select Tool and drag the endpoint to the desired location. To delete an element of the drawing, click the Delete Tool, , move your mouse over the element to be deleted (it will change colors from black to blue), and clicking on it will delete it from the Number Line.

You are also able to undo the last action you did, , and clear everything you've drawn so far, .

Some questions will have no solution, and for these, all you have to do is click the "No Sol" button, .

Draw the following interval on the Number Line using the parentheses and brackets.

$[-1, 0] \cup (4, \infty)$



Your answer should look like this:




For more information about using the Number Line Tool, [click here](#).

16.1/1 points | [Previous Answers](#)






Using the Graphing Utility


For some questions, you will be required to use the EWA Graphing Utility.




Play around with the available tools to familiarize yourself with the Graphing Utility.

The first tool on the left panel is the Select Tool, . This tool is used to select objects that you have already drawn.

Below the Select Tool are your drawing tools: Lines, Circle, Parabolas, and Point. Notice the small arrows to the right of the Lines and

Parabolas tools? If you click the arrow next to the Lines tool, , you will also see the Ray Tool, , and Line Segment Tool, . If you click the arrow next to the Parabolas Tool, , you will see the Horizontal Parabola Tool, .

Below the drawing tools is the No Solution button, . This button is used when what you are asked to graph has no solution.

On the right panel are the Actions Tools. Use the Clear All button, , to delete everything you have drawn. Use the Delete button, , to delete the object that is currently selected. And, use the Fill Tool, , to fill in a section of the graphing window for inequality questions (we'll go into this more later).


Below the graphing window is the Objects Properties box; we discuss how to use this box later.

Try graphing the following items:

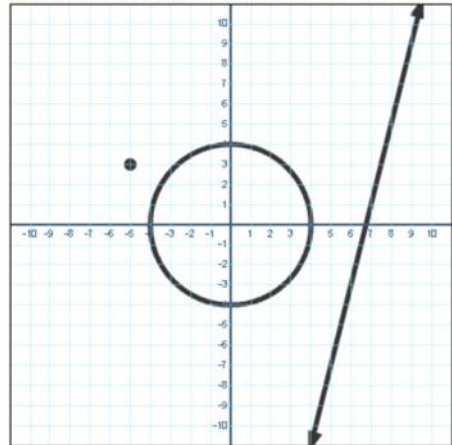
(After selecting a tool, the coordinates of your mouse will appear on the graphing window.)

- A point at $(-5, 3)$.
- A line that contains the points $(7, 1)$ and $(8, 5)$.
- A circle whose center is $(0, 0)$ and lies on the point $(0, -4)$.

Submission Data



Your graph should look like this:



17.1/1 points | [Previous Answers](#)


Plotting Points

When you begin to learn about graphing, one of your first lessons will be on plotting points in the coordinate plane. For these questions, you will be using the EWA Graphing Utility.

Lets walk through a couple of examples. (Plot all the points in the same graphing window.)

1. Plot the point (1, -8):



Begin by clicking on the Point Tool, . Then move your mouse over the graphing window. As you move, your cursor will display your current location in the coordinate plane. Move your cursor until it shows (1, -8), and then click your mouse. Now look at the Objects Properties box. The coordinates of your point is shown. If it is wrong, simply place your cursor in the box, delete the current value, and type in the correct value. Your point will automatically update.

2. Plot the point (3.25, 4):

Again, begin by clicking on the Point Tool. Place a point at (3, 4). You cannot place your point on decimal values using your mouse, so we place it as close as possible. Now, in the Object Properties, place your cursor in the box to the left (the x-coordinate), and change it to "3.25". Your point will automatically update.

3. Plot the point $(-5, \frac{1}{2})$:

As usual, begin by clicking on the Point Tool. Place a point at (-5, 1). You cannot place your point on fractional values using your mouse, so we place it as close as possible. Now, in the Object Properties, place your cursor in the box to the right (the y-coordinate), and change it to "1/2". Your point will automatically update.

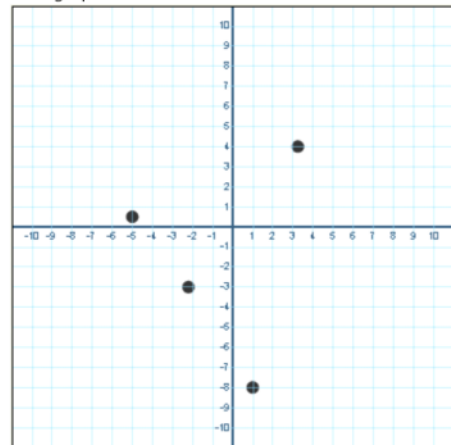
4. Plot the point $(-2 \frac{1}{5}, -3)$:

As before, we will place a point as close to the desired coordinates as possible. Lets use (-2, -3). Now, the desired x-coordinate is a mixed fraction. Unfortunately, the Graphing Utility does not recognize mixed fractions. This means that we will need to convert the mixed fraction into a decimal value or an improper fraction. In the Object Properties, change the x-coordinate to either "-2.2" or "-11/5". Your point will automatically update.

[Submission Data](#)

✔

Your graph should look like this:




18.1/1 points | [Previous Answers](#)

Graphing Lines

Lines are a fundamental concept in mathematics, so it is important that we know how to graph them. For these questions we will use the the EWA Graphing Utility.

Lets walk through a couple of examples. (Plot all lines in the same graphing window.)

1. Graph the line that goes through (-2, 4) and (5, 3.5):

Begin by clicking on the Line Tool, . Then move your mouse over the graphing window. As you move, your cursor will display your current location in the coordinate plane. Move your cursor until it shows (-2, 4), click your mouse to place the first point, move to (5, 3), and click to place the second point. You cannot place your point on decimal or fractional values using your mouse, so we place it as close as possible. Now, in the Object Properties where the coordinates of your two points are shown, place your cursor in the right box (the y-coordinate) for the second point, and change it to "3.5". Your line will automatically update.

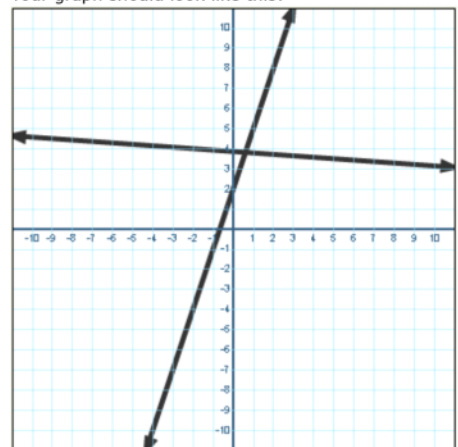
2. Graph the line $y = 3x + 2$:

For this question, we have to **start on paper** to find two points that lie on this line. You will see that the points (0, 2) and (1, 5) are two such points. Follow the steps from Example 1 to graph this line.

[Submission Data](#)

✔

Your graph should look like this:

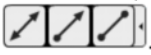


19.1/1 points | [Previous Answers](#)

Graphing Linear Piecewise Functions

Sometimes you will be asked to graph a linear piecewise function. For these questions, you will be using the EWA Graphing Utility.







To graph linear piecewise functions, you will need to use the Ray Tool and the Line Segment Tool. You can find these tools by clicking

on the small arrow to the right of the Line Tool, .

Graph the following piecewise function:

$$f(x) = \begin{cases} 2x + 4 & \text{if } x < -3 \\ 3 & \text{if } -3 \leq x < 3 \\ -4x + 6 & \text{if } x \geq 3 \end{cases}$$

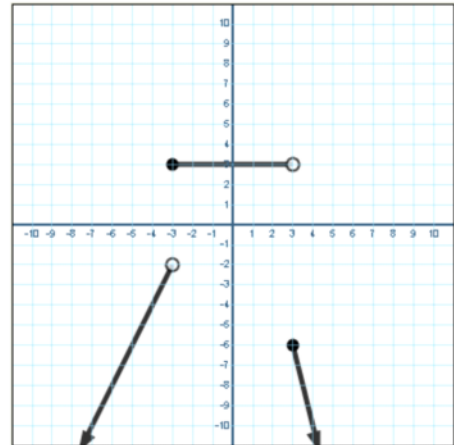
We begin this question by **working it out on paper**. We have to find the values at the endpoints and additional points for the first and third equations. Lets take each part in turn.

1. For the first equation, we can find the endpoints $(-3, -2)$ and the additional point $(-5, -6)$. Now, select the Ray Tool, , since this part of the graph only has one endpoint. First place the endpoint by moving your cursor to $(-3, -2)$ and clicking on your mouse. Then, move to the second point we found, $(-5, -6)$, and click to place the second point. Now since this part of the graph is for x values strictly less than -3 (i.e. not including -3), we need to make the endpoint open. Look in the Objects Properties, to the right of the coordinates for endpoint, we see the options for the point type,  . By default it is set to closed, , but we want opened. Click the Open Point button, , and the endpoint will become opened and the button will turn blue.
2. Now for the second equation, we can find that the endpoints are at $(-3, 3)$ and $(3, 3)$. Since this part of the graph has two endpoints, we will need the Line Segment Tool, . Place the two endpoints by clicking on the appropriate locations in the graphing window. Looking at the function, we see that $(-3, 3)$ is a closed point, but $(3, 3)$ is an open point. Follow the steps from Part 1 to change this point.
3. For the third equation, the endpoint is at $(3, -6)$ and an additional point is at $(4, -10)$. Follow the steps from Part 1 to graph this part of the function.

Submission Data

✓


Your graph should look like this:



20.1/1 points | [Previous Answers](#)

Graphing Circles

Sometimes you will be asked to graph a circle. For these questions, you will be using the EWA Graphing Utility.

To graph circles, you will need to use the Circle Tool, .

Lets look at a couple of examples. (Graph all circles in the same graphing window.)

1. Graph the circle with center (5, -6) and radius 7.

Begin by working this question out on paper to find a second point on the circle. We see that (-2, -6) is such a point. Now click on the Circle Tool. The first point you will place will be for the center. So move you cursor to the point (5, -6) and click your mouse to place the center point. Then move over to (-2, -6) to place the point on the circle. Your graph will automatically update.

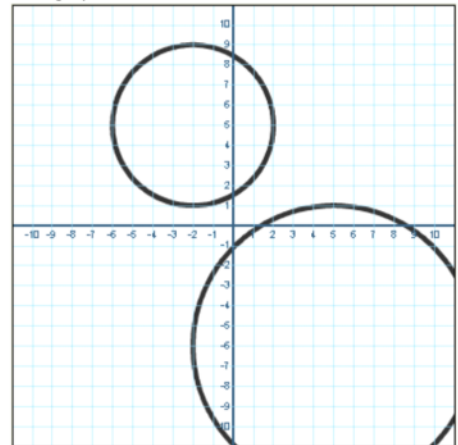
2. Graph the circle $(x + 2)^2 + (y - 5)^2 = 16$.

Again begin by working this out on paper to find the coordinates for the center and a point on the circle. We see that the center is at (-2, 5), and (-2, 9) is a point on the circle. Follow the steps from Example 1 to graph this circle.

[Submission Data](#)

✓

Your graph should look like this:




21.1/1 points | [Previous Answers](#)

Graphing Parabolas

Quadratic equations are also a fundamental concept in mathematics. Their graphs look like parabolas, and we will be using the EWA Graphing Utility for these questions.


Lets look at a couple of examples.(Graph all parabolas in the same graphing window.)

1. Graph the parabola that open upwards and whose vertex is at (0, 5) and lies on the point (-1, 6).

Begin by clicking the Vertical Parabola Tool, . We first want to place the vertex, and then the point on the parabola.

2. Graph the quadratic equation: $x = 3 - (y - 1)^2$.

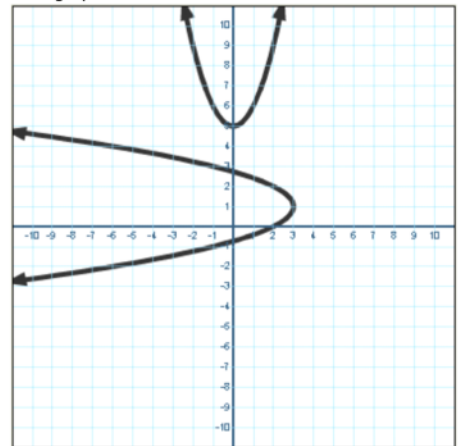
For this example, we must begin on paper to find the orientation, vertex, and a point that lies on the curve. We see that it opens to the left, has its vertex at (3, 1), and lies on the point (2, 0).

To graph this parabola, we will need to use the Horizontal Parabola Tool, , which can be found by clicking on the small arrow to the right of the Vertical Parabola Tool. Now, place the vertex and point as before.

[Submission Data](#)

✔

Your graph should look like this:





22.1/1 points | [Previous Answers](#)

Graphing Inequalities


Another topic you may study is inequalities and systems of linear inequalities. Since the solutions for these topics is often graphical, you will be using the EWA Graphing Utility.

Lets look at a system of linear inequalities:

$$\begin{cases} x + 3y < 12 \\ x + y \leq 8 \\ x \geq 0 \\ y > 0 \end{cases}$$

We start by graphing the line corresponding to the first inequality: $x + 3y = 12$. Using scratch paper, we see that the points (0, 4) and (9, 1) are on this line. Using the Line Tool, graph this line. Now, since the inequality is strictly less than 12, the values on the line are not included in the inequality, and the line should be dashed instead of solid. At the right side of the Object Properties area, we see the options for the line types. By default, it is set to solid, , but we want dashed. Click the Dashed Line button, , and the line will become dashed and the button will turn blue.

Graph the remaining lines and change them to dashed as needed.

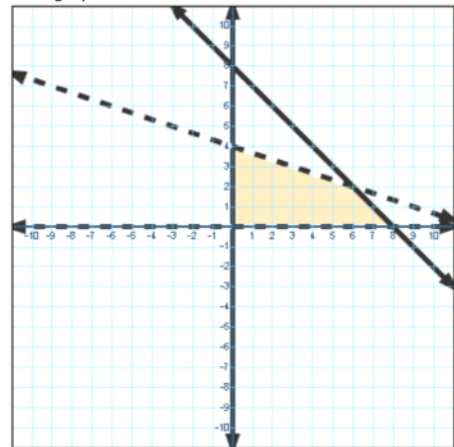
Now, on scratch paper, test out a point in each region formed by the graph. If a test point satisfies the system of inequalities, we have found the region that is shaded. Click on the Fill Tool button, , and click your mouse inside this region. The region should now be shaded yellow.

If you accidentally fill the wrong region, using the Fill Tool, simply click the incorrect region again to unshade and click in the correct region.

[Submission Data](#)

✓

Your graph should look like this:



Review Limits

Monday, April 27, 2015 5:10 PM

WebAssign
Review - Limits (Homework)

John Putkey
MATH 2414 - CALCULUS II - CRN 46148 - SPRING 2015, Spring 2015
Instructor: Jaime Hernandez

Current Score : 46.5 / 54 Due : Monday, March 2 2015 11:00 AM CST

The due date for this assignment is past. Your work can be viewed below, but no changes can be made.

Important! Before you view the answer key, decide whether or not you plan to request an extension. Your Instructor may *not* grant you an extension if you have viewed the answer key. Automatic extensions are not granted if you have viewed the answer key.

[View Key](#)

1. 2/2 points | [Previous Answers](#)LarCalc9 1.2.001.

Consider the following limit.

$$\lim_{x \rightarrow 2} \frac{x - 2}{x^2 - 21x + 38}$$

Complete the table. (Round your answers to four decimal places.)

x	1.9	1.99	1.999	2	2.001	2.01	2.1
f(x)	<input type="text" value="-0.0585"/> ✓	<input type="text" value="-0.0588"/> ✓	<input type="text" value="-0.0588"/> ✓	?	<input type="text" value="-0.0588"/> ✓	<input type="text" value="-0.0589"/> ✓	<input type="text" value="-0.05917"/> ✓

Use the result to estimate the limit. (If you need to use ∞ or $-\infty$, enter INFINITY or -INFINITY, respectively. If an answer does not exist, enter DNE.)

✓

Need Help?

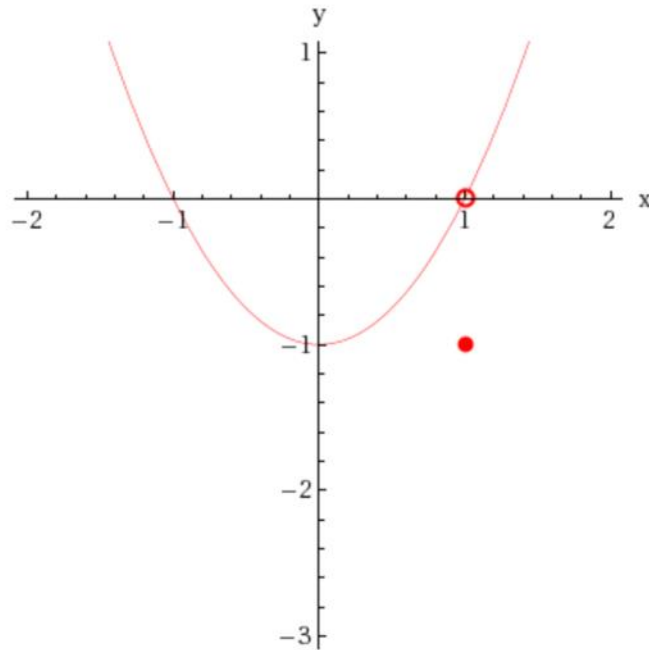
[Read It](#)

[Chat About It](#)

2. 1/1 points | [Previous Answers](#)LarCalc9 1.2.018.

Consider the following.

$$f(x) = \begin{cases} x^2 - 1 & \text{if } x \neq 1 \\ -1 & \text{if } x = 1 \end{cases}$$



Use the graph to find the limit below (if it exists). (If an answer does not exist, enter DNE.)

$$\lim_{x \rightarrow 1} f(x)$$

✓

Need Help?

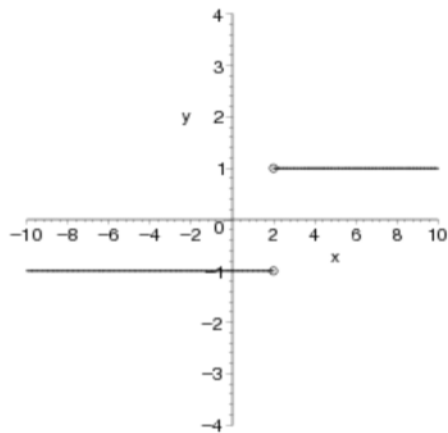
Read It

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3. 1/1 points | [Previous Answers](#)LarCalc9 1.2.019.

Consider the following.

$$\lim_{x \rightarrow 2} \frac{|x - 2|}{x - 2}$$



Use the graph to find the limit (if it exists). (If an answer does not exist, enter DNE.)

✓

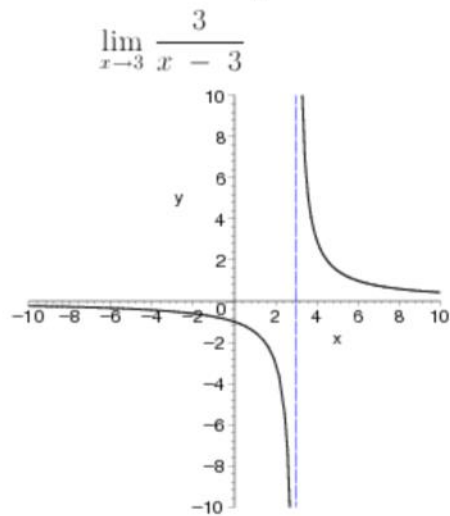
Need Help?

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4. 1/1 points | [Previous Answers](#)LarCalc9 1.2.020.

Consider the following.



Use the graph to find the limit (if it exists). (If an answer does not exist, enter DNE.)

✓

Need Help?

[Read It](#)

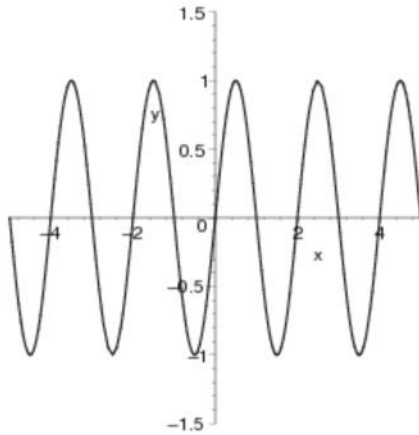
[Watch It](#)

[Chat About It](#)

5. 1/1 points | [Previous Answers](#)LarCalc9 1.2.021.

Consider the following.

$$\lim_{x \rightarrow -2} \sin(\pi x)$$



Use the graph to find the limit (if it exists). (If an answer does not exist, enter DNE.)

✓

Need Help?

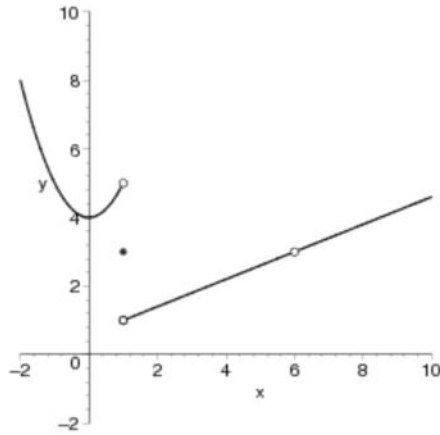
[Read It](#)

[Watch It](#)

[Chat About It](#)

6. 1/1 points | [Previous Answers](#)LarCalc9 1.2.025.

Use the graph of the function f to decide whether the value of the given quantity exists. If it does, find it. If it does not, enter DNE.



(a) $f(1)$

✓

(b) $\lim_{x \rightarrow 1} f(x)$

✓

(c) $f(6)$

✓

(d) $\lim_{x \rightarrow 6} f(x)$

✓

Need Help?

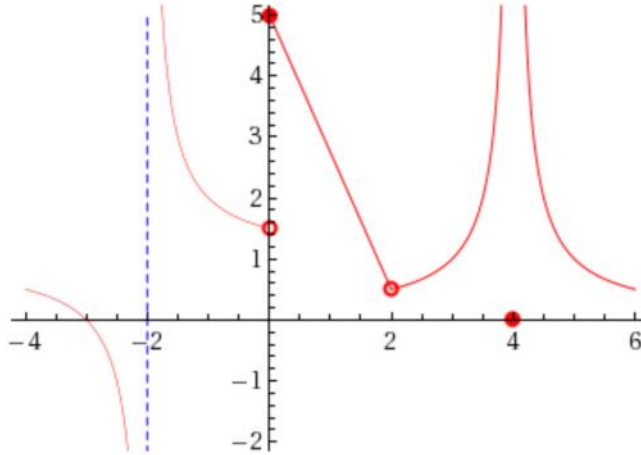
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[Watch It](#)

[Chat About It](#)

7. 2/2 points | [Previous Answers](#)LarCalc9 1.2.026.

Use the graph of the function f to decide whether the value of the given quantity exists. (If an answer does not exist, enter DNE.)



(a) $f(-2)$

DNE ✓

(b) $\lim_{x \rightarrow -2} f(x)$

DNE ✓

(c) $f(0)$

5 ✓

(d) $\lim_{x \rightarrow 0} f(x)$

DNE ✓

(e) $f(2)$

DNE ✓

(f) $\lim_{x \rightarrow 2} f(x)$

.5 ✓

(g) $f(4)$

0 ✓

(h) $\lim_{x \rightarrow 4} f(x)$

INFINITY ✓

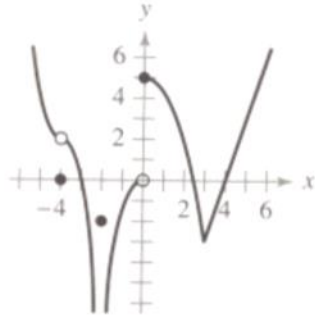
Need Help?

Read It

Chat About It

8. 0/1 points | [Previous Answers](#)LarCalc9 1.2.028.

Use the graph of the function f to identify the values of c for which $\lim_{x \rightarrow c} f(x)$ exists.



- $c \neq -4, 0, 3$
- $c \neq -4, -2, 0, 3$
- $c \neq -2, 0$
- \mathbb{R}
- $c \neq -4, -2$



Need Help?

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Chat About It

9. 1/1 points | [Previous Answers](#)LarCalc9 1.3.024.

Find the limits.

$$f(x) = x + 7 \quad g(x) = x^2$$

(a) $\lim_{x \rightarrow -5} f(x) =$ ✓

(b) $\lim_{x \rightarrow 1} g(x) =$ ✓

(c) $\lim_{x \rightarrow -5} g(f(x)) =$ ✓

Need Help?

Read It

Chat About It

10. 1/1 points | [Previous Answers](#)LarCalc9 1.3.028.

Find the limit of the trigonometric function.

$$\lim_{x \rightarrow \pi} 2 \tan(x)$$

✓

Need Help?

Read It

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11. 1/1 points | [Previous Answers](#)LarCalc9 1.3.032.

Find the limit of the trigonometric function.

$$\lim_{x \rightarrow \pi} \cos(3x)$$

✓

Need Help?

Read It

Chat About It

12.1/1 points | [Previous Answers](#) LarCalc9 1.3.038.

Consider the following information.

$$\lim_{x \rightarrow c} f(x) = 6/5$$

$$\lim_{x \rightarrow c} g(x) = 4/5$$

Use the information to evaluate the limits.

(a) $\lim_{x \rightarrow c} [4f(x)]$

4.8 ✓

(b) $\lim_{x \rightarrow c} [f(x) + g(x)]$

2 ✓

(c) $\lim_{x \rightarrow c} [f(x)g(x)]$

24/25 ✓

(d) $\lim_{x \rightarrow c} (f(x))/g(x)$

1.5 ✓

Need Help?

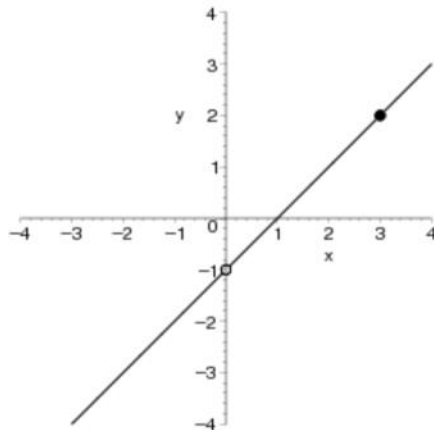
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13.2/2 points | [Previous Answers](#)LarCalc9 1.3.041.

Consider the following function and its graph.

$$g(x) = \frac{x^2 - x}{x}$$



Use the graph to determine the limit visually (if it exists). (If an answer does not exist, enter DNE.)

(a) $\lim_{x \rightarrow 0} g(x)$

✓

(b) $\lim_{x \rightarrow 3} g(x)$

✓

Write a simpler function that agrees with the given function at all but one point.

$g_2(x) =$



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14.2/2 points | [Previous Answers](#)LarCalc9 1.3.046.

Consider the following.

$$\lim_{x \rightarrow -2} \frac{2x^2 - 2x - 12}{x + 2}$$

Find the limit of the function (if it exists). (If an answer does not exist, enter DNE.)

✓

Write a simpler function that agrees with the given function at all but one point.

$g(x) =$



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15.1/1 points | [Previous Answers](#)LarCalc9 1.3.053.

Find the limit (if it exists). (If an answer does not exist, enter DNE.)

$$\lim_{t \rightarrow 5} (t^2 + t - 30)/(t^2 - 25)$$

✓

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16.1/1 points | [Previous Answers](#)LarCalc9 1.3.056.

Find the limit (if it exists). (If an answer does not exist, enter DNE.)

$$\lim_{x \rightarrow 42} (\sqrt{x+7}-7)/(x-42)$$

✓

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17.1/1 points | [Previous Answers](#)LarCalc9 1.3.063.

Find the limit (if it exists). (If an answer does not exist, enter DNE.)

$$\lim_{\Delta t \rightarrow 0} ((t + \Delta t)^2 - 7(t + \Delta t) + 9 - (t^2 - 7t + 9))/(\Delta t)$$



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18.1/1 points | [Previous Answers](#)LarCalc9 1.3.068.

Determine the limit of the trigonometric function (if it exists). (If an answer does not exist, enter DNE.)

$$\lim_{\theta \rightarrow 0} (\cos(2\theta) \tan(2\theta))/(\theta)$$

2

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19.1/1 points | [Previous Answers](#)LarCalc9 1.3.077.

Use a graphing utility to graph the function and estimate the limit. Use a table to reinforce your conclusion. Then find the limit by analytic methods. (You may round your answer to three decimal places.)

$$\lim_{x \rightarrow 0} \frac{\sqrt{x+7} - \sqrt{7}}{x}$$



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20.1/1 points | [Previous Answers](#)LarCalc9 1.3.084.

Use a graphing utility to graph the function and estimate the limit. Use a table to reinforce your conclusion. Then find the limit by analytic methods.

$$\lim_{x \rightarrow 0} \frac{5 \sin(x)}{\sqrt[3]{x}}$$



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21.1/1 points | [Previous Answers](#)LarCalc9 1.4.010.

Find the limit (if it exists). (If an answer does not exist, enter DNE.)

$$\lim_{x \rightarrow 5^+} \frac{5 - x}{x^2 - 25}$$

✓

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22.1/1 points | [Previous Answers](#)LarCalc9 1.4.014.

Find the limit (if it exists). (If an answer does not exist, enter DNE.)

$$\lim_{x \rightarrow 8^{**}(+)}} \frac{\text{abs}(x-8)}{(x-8)}$$

✓

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23.1/1 points | [Previous Answers](#)LarCalc9 1.4.018.MI.

Find the limit (if it exists). (If an answer does not exist, enter DNE.)

$$\lim_{x \rightarrow 5} f(x) \text{ text(, where) } f(x) = \begin{cases} x^2 - 4x + 5 & \text{if } x < 5 \\ -x^2 + 4x + 15 & \text{if } x \geq 5 \end{cases}$$

✓

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24.3/3 points | [Previous Answers](#) | arcalc9 1.4.039.nva

Consider the following.

$$f(x) = \frac{9}{1 - x^2}$$

Find the x -values at which f is not continuous. Which of the discontinuities are removable?
(Enter your answers from smallest to largest. Enter NONE in any unused answer blanks.)

✓ ; ✓

✓ ; ✓

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25.2.5/3 points | [Previous Answers](#) | arcalc9 1.4.048.nva

Consider the following.

$$f(x) = (x-5)/(x^2+2x-35)$$

Find the x -values at which f is not continuous. Which of the discontinuities are removable?
(Enter your answers from smallest to largest. Enter NONE in any unused answer blanks.)

✓ ; ✗

✓ ; ✓

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26.1.5/1.5 points | [Previous Answers](#) larcalc9 1.4.050.nva

Consider the following.

$$f(x) = \frac{|x - 3|}{x - 3}$$

Find the x -value at which f is not continuous. Is the discontinuity removable? (Enter NONE in any unused answer blanks.)

✓ ; ✓

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[Chat About It](#)

27.1.5/1.5 points | [Previous Answers](#) LarCalc9 1.4.054.MI.

Consider the following.

$$f(x) = \begin{cases} -5x, & x \leq 2 \\ x^2 - 2x + 3, & x > 2 \end{cases}$$

Find the x -value at which f is not continuous. Is the discontinuity removable? (Enter NONE in any unused answer blanks.)

$x =$ ✓ ; ✓

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[Chat About It](#)

28.3/3 points | [Previous Answers](#) larcalc9 1.4.055.nva

Consider the following.

$$f(x) = \begin{cases} \tan\left(\frac{\pi x}{4}\right), & |x| < 1 \\ x, & |x| \geq 1 \end{cases}$$

Find the x -values at which f is not continuous. Which of the discontinuities are removable? (Enter your answers from smallest to largest. Enter NONE in any unused answer blanks.)

✓ ; N/A: no discontinuity ✓

✓ ; N/A: no discontinuity ✓

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29.1/1 points | [Previous Answers](#) LarCalc9 1.4.063.

Find the constant a such that the function is continuous on the entire real line.

$$f(x) = \begin{cases} 5x^2, & x \geq 1 \\ ax - 5, & x < 1 \end{cases}$$

$a =$ ✓

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30.1/1 points | [Previous Answers](#) LarCalc9 1.4.066.

Find the constant a such that the function is continuous on the entire real line.

$$g(x) = \begin{cases} \frac{2\sin x}{x} & \text{if } x < 0 \\ a - 6x & \text{if } x \geq 0 \end{cases}$$

$a =$ ✓

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31.2/2 points | [Previous Answers](#)LarCalc9 1.4.067.

Find the constants a and b such that the function is continuous on the entire real line.

$$f(x) = \begin{cases} 9, & x \leq -4 \\ ax + b, & -4 < x < 5 \\ -9, & x \geq 5 \end{cases}$$

$a = -2$ ✓

$b = 1$ ✓

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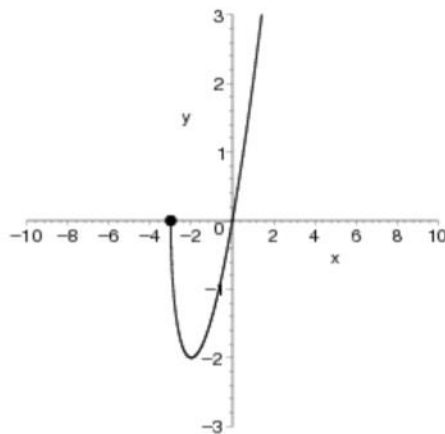
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32.1/1 points | [Previous Answers](#)LarCalc9 1.4.078.

Describe the interval on which the function below is continuous.

$f(x) = x\sqrt{x+3}$



- $(-\infty, \infty)$
- $[3, \infty)$
- $(3, \infty)$
- $(-3, \infty)$
- $[-3, \infty)$



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33.2/2 points | [Previous Answers](#)LarCalc9 1.5.001.

Consider the following function.

$$f(x) = \frac{1}{x - 9}$$

Determine whether $f(x)$ approaches ∞ or $-\infty$ as x approaches 9 from the left and from the right.

(a) $\lim_{x \rightarrow 9^-} f(x)$



(b) $\lim_{x \rightarrow 9^+} f(x)$



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34.2/2 points | [Previous Answers](#)LarCalc9 1.5.020.

Find the vertical asymptotes (if any) of the graph of the function. (Use n as an arbitrary integer if necessary. If an answer does not exist, enter DNE.)

$$g(x) = (6+x)/(x^2(2-x))$$

✓ (smaller value)

✓ (larger value)

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35.0/1 points | [Previous Answers](#)LarCalc9 1.5.022.

Find the vertical asymptotes (if any) of the graph of the function. (Use n as an arbitrary integer if necessary. If an answer does not exist, enter DNE.)

$$g(x) = \frac{\frac{1}{2}x^3 - 7x^2 + 24x}{7x^2 - 98x + 336}$$



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36.-/1 pointslarcalc9 1.5.031.defective

Find the vertical asymptotes (if any) of the graph of the function. (Use n as an arbitrary integer if necessary. If an answer does not exist, enter DNE.)

$$s(t) = \frac{6t}{\sin(t)}$$

(No Response)

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37.-/1 pointsLarCalc9 1.5.033.

Determine whether the graph of the function has a vertical asymptote or a removable discontinuity at $x = -3$. Graph the function using a graphing utility to confirm your answer.

$$f(x) = \frac{x^2 - 9}{x + 3}$$

- vertical asymptote
- removable discontinuity

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38. -/1 points LarCalc9 1.5.047.

Find the limit (if it exists). (If the limit does not exist, enter DNE.)

$$\lim_{x \rightarrow 0^-} \left(5 + \frac{9}{x} \right)$$

(No Response)

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39. -/1 points LarCalc9 1.5.048.

Find the limit (if it exists). (If the limit does not exist, enter DNE.)

$$\lim_{x \rightarrow 0^-} \left(x^2 - \frac{3}{x} \right)$$

(No Response)

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40. -/1 points LarCalc9 1.5.052.

Find the limit (if it exists). (If the limit does not exist, enter DNE.)

$$\lim_{x \rightarrow 0^+} (x+8)/(\cot(x))$$

(No Response)

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Review Differentiation

Monday, April 27, 2015 5:11 PM

WebAssign
Review - Differentiation (Homework)John Putkey
MATH 2414 - CALCULUS II - CRN 46148 - SPRING 2015, Spring 2015
Instructor: Jaime Hernandez**Current Score** : 43 / 45 **Due** : Monday, March 2 2015 11:00 AM CST

The due date for this assignment is past. Your work can be viewed below, but no changes can be made.

Important! Before you view the answer key, decide whether or not you plan to request an extension. Your Instructor may *not* grant you an extension if you have viewed the answer key. Automatic extensions are not granted if you have viewed the answer key.

[View Key](#)

1. 1/1 points | [Previous Answers](#)LarCalc9 2.1.008.MI.

Find the slope of the tangent line to the graph of the function at the given point.

$$g(x) = 11 - x^2; \quad (3, 2)$$

 ✓**Need Help?**[Read It](#)[Master It](#)[Chat About It](#)

2. 1/1 points | [Previous Answers](#)LarCalc9 2.1.017.

Find the derivative by the limit process.

$$f(x) = x^2 + x - 9$$

 $f'(x) =$ ✓**Need Help?**[Read It](#)[Watch It](#)[Chat About It](#)

3. 1/1 points | [Previous Answers](#)LarCalc9 2.1.021.

Find the derivative by the limit process.

$$f(x) = \frac{8}{x - 6}$$

$f'(x) =$



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4. 1/1 points | [Previous Answers](#)LarCalc9 2.1.023.

Find the derivative by the limit process.

$$f(x) = \sqrt{x + 1}$$

$f'(x) =$



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5. 1/1 points | [Previous Answers](#)LarCalc9 2.1.034.

Find an equation of the line that is tangent to the graph of f and parallel to the given line.

Function	Line
$f(x) = 2x^2$	$6x - y + 5 = 0$

$y =$



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6. 2/2 points | [Previous Answers](#)LarCalc9 2.1.043.

The tangent line to the graph of $y = g(x)$ at the point $(6, 6)$ passes through the point $(7, 3)$. Find $g(6)$ and $g'(6)$.

$$g(6) = \boxed{6} \checkmark$$

$$g'(6) = \boxed{-3} \checkmark$$

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7. 2/2 points | [Previous Answers](#)LarCalc9 2.1.056.

The limit represents $f'(c)$ for a function $f(x)$ and a number c . Find $f(x)$ and c .

$$\lim_{x \rightarrow 1} \frac{5\sqrt{x} - 5}{x - 1}$$

$$f(x) =$$

$$c = \boxed{1} \checkmark$$

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8. 1/1 points | [Previous Answers](#)LarCalc9 2.1.073.MI.

Use the alternative form of the derivative to find the derivative at $x = c$ (if it exists). (If the derivative does not exist at c , enter UNDEFINED.)

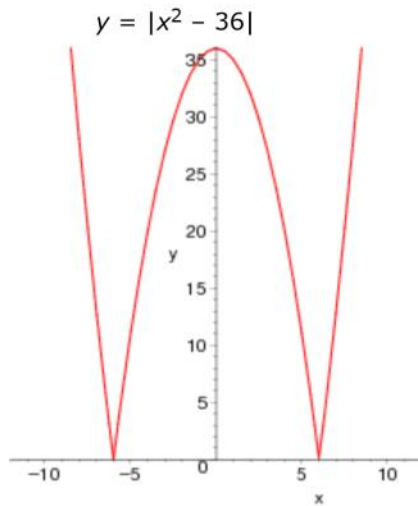
$$f(x) = x^2 - 5, c = 8$$
$$f'(8) = \boxed{16} \checkmark$$

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9. 1/1 points | [Previous Answers](#)LarCalc9 2.1.084.

Describe the x -values at which the function is differentiable.



- The function is differentiable for all x -values.
- The function is differentiable for all $-6 < x < 6$.
- The function is differentiable for all $x < -6$ or $6 < x$.
- The function is differentiable for all $x \neq \pm 36$.
- The function is differentiable for all $x \neq \pm 6$.



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10.1/1 points | [Previous Answers](#)LarCalc9 2.1.089.

Use a graphing utility to find the x -values at which f is differentiable.

$$f(x) = |x - 6|$$

- $(-\infty, 6) \cap (6, \infty)$
 - $(-\infty, 6] \cap [6, \infty)$
 - $(-\infty, 6) \cup (6, \infty)$
 - $(-\infty, 6] \cup [6, \infty)$
 - $(-\infty, \infty)$
- 

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11.0/1 points | [Previous Answers](#)LarCalc9 2.1.097.

Determine whether the function is differentiable at $x = 3$.

$$f(x) = \begin{cases} x^2 + 2, & x \leq 3 \\ 6x - 7, & x > 3 \end{cases}$$

The function  differentiable at $x = 3$.

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12.1/1 points | [Previous Answers](#)LarCalc9 2.1.102.

Determine whether the statement is true or false. If it is false, explain why or give an example that shows it is false.

If a function is continuous at a point, then it is differentiable at that point.

- True.
- False. $f(x) = |x - 2|$ is continuous, but not differentiable at $x = 2$.
- False. $f(x) = 1/x$ is continuous, but not differentiable at $x = 1$.
- False. $f(x) = x^2$ is continuous, but not differentiable at $x = 0$.



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13.1/1 points | [Previous Answers](#)LarCalc9 2.2.019.

Use the rules of differentiation to find the derivative of the function.

$$y = \frac{\pi}{3} \cos(\theta) - \sin(\theta)$$

$y' =$



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14.1/1 points | [Previous Answers](#)LarCalc9 2.2.036.

Find the slope of the graph of the function at the given point. Use the *derivative* feature of a graphing utility to confirm your results.

$$f(x) = 3(7 - x)^2, (6, 3)$$

$f'(6) =$



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15.1/1 points | [Previous Answers](#)LarCalc9 2.2.041.

Find the derivative of the function.

$$g(t) = t^2 - \frac{1}{t^3}$$

$g'(t) =$ 

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16.1/1 points | [Previous Answers](#)LarCalc9 2.2.045.

Find the derivative of the function.

$$f(x) = \frac{x^3 - 5x^2 + 4}{x^2}$$

$f'(x) =$ 

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17.1/1 points | [Previous Answers](#)LarCalc9 2.2.049.

Find the derivative of the function.

$$f(x) = \sqrt{x} - 2\sqrt[3]{x}$$

$f'(x) =$ 

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18.0/1 points | [Previous Answers](#)LarCalc9 2.2.113.

Find an equation of the parabola $y = ax^2 + bx + c$ that passes through $(0, 2)$ and is tangent to the line $y = 2x - 2$ at $(1, 0)$.

$y =$ 

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19.2/2 points | [Previous Answers](#)LarCalc9 2.2.118.

Find a and b such that f is differentiable everywhere.

$$f(x) = \begin{cases} 7 \cos(x) & \text{if } x < 0 \\ ax + b & \text{if } x \geq 0 \end{cases}$$

$a =$ 

$b =$ 

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20.1/1 points | [Previous Answers](#)LarCalc9 2.3.005.MI.

Use the Product Rule to differentiate the function.

$$f(x) = x^5 \cos(x)$$

$f'(x) =$ 

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21.1/1 points | [Previous Answers](#)LarCalc9 2.3.007.

Use the Quotient Rule to differentiate the function.

$$f(x) = \frac{x}{x^3 + 4}$$

$$f'(x) =$$



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22.2/2 points | [Previous Answers](#)LarCalc9 2.3.016.

Find $f'(x)$ and $f'(c)$.

$$f(x) = \frac{x + 8}{x - 3}, \quad c = 7$$

$$f'(x) =$$



$$f'(7) = \boxed{-11/16} \checkmark$$

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23.1/1 points | [Previous Answers](#)LarCalc9 2.3.046.

Find the derivative of the trigonometric function.

$$h(x) = \frac{1}{x} - 2 \sec(x)$$

$h'(x) =$



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24.1/1 points | [Previous Answers](#)LarCalc9 2.3.095.

Find the second derivative of the function.

$$f(x) = x^{3/2}$$

$f''(x) =$



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25.1/1 points | [Previous Answers](#)LarCalc9 2.3.103.

Find the given higher-order derivative.

$$f'''(x) = 4\sqrt{x}$$

$f^{(4)}(x) =$



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26.1/1 points | [Previous Answers](#)LarCalc9 2.3.099.

Find the second derivative of the function.

$$f(x) = x \sin(x)$$

$$f''(x) = \quad \checkmark$$

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27.1/1 points | [Previous Answers](#)LarCalc9 2.3.107.

Use the given information to find $f'(2)$.

$$g(2) = 3 \quad \text{and} \quad g'(2) = -2$$

$$h(2) = -1 \quad \text{and} \quad h'(2) = 4$$

$$f(x) = \frac{g(x)}{h(x)}$$

$$f'(2) = \boxed{-10} \quad \checkmark$$

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28.1/1 points | [Previous Answers](#)LarCalc9 2.3.108.

Use the given information to find $f'(9)$.

$$f(x) = g(x)h(x)$$

$$g(9) = -2 \quad \text{and} \quad g'(9) = 5$$

$$h(9) = -6 \quad \text{and} \quad h'(9) = -7$$

$$f'(9) = \boxed{-16} \quad \checkmark$$

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29.1/1 points | [Previous Answers](#)LarCalc9 2.4.009.

Find the derivative of the function.

$$g(x) = 3(5 - 8x)^5$$

$$g'(x) =$$



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30.1/1 points | [Previous Answers](#)LarCalc9 2.4.027.

Find the derivative of the function.

$$y = \frac{4x}{\sqrt{x^2 + 8}}$$

$$y'(x) =$$



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31.1/1 points | [Previous Answers](#)LarCalc9 2.4.047.

Find the derivative of the function.

$$g(x) = 7 \tan(9x)$$

$$g'(x) =$$



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32.1/1 points | [Previous Answers](#)LarCalc9 2.4.056.

Find the derivative of the function.

$$g(t) = 7 (\cos(\pi t))^4$$

$$g'(t) =$$



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33.1/1 points | [Previous Answers](#)LarCalc9 2.4.061.MI.

Find the derivative of the function.

$$f(t) = 9 \sec^3 (\pi t - 8)$$

$$f'(t) =$$



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34.1/1 points | [Previous Answers](#)LarCalc9 2.5.002.

Find dy/dx by implicit differentiation.

$$3x^2 - 5y^2 = 1$$

$$dy/dx =$$



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35.1/1 points | [Previous Answers](#)LarCalc9 2.5.006.

Find dy/dx by implicit differentiation.

$$5x^{2y} + 6y^{2x} = -7$$

$dy/dx =$



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36.1/1 points | [Previous Answers](#)LarCalc9 2.5.012.

Find dy/dx by implicit differentiation.

$$(\cos \pi x + \sin \pi y)^3 = 39$$

$dy/dx =$



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37.1/1 points | [Previous Answers](#)LarCalc9 2.5.014.

Find dy/dx by implicit differentiation.

$$\cot(y) = 5x - 6y$$

$dy/dx =$



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38.2/2 points | [Previous Answers](#)LarCalc9 2.5.022.

Find dy/dx by implicit differentiation. and evaluate the derivate at the given point.

$$x^4 - y^4 = 0, \quad (1, 1)$$

$$\frac{dy}{dx} =$$



At (1, 1): $y' =$

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39.1/1 points | [Previous Answers](#)LarCalc9 2.5.041.

Use implicit differentiation to find an equation of the tangent line to the ellipse at the given point.

$$\frac{x^2}{4} + \frac{y^2}{8} = 12, \quad (4, -8)$$

$y =$



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40.1/1 points | [Previous Answers](#)LarCalc9 2.5.049.

Find d^2y/dx^2 in terms of x and y .

$$y^5 = x^8$$

$d^2y/dx^2 =$



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Review applications of diff

Monday, April 27, 2015 5:12 PM

WebAssign

Review - Applications of Differentiation (Homework)

John Putkey

MATH 2414 - CALCULUS II - CRN 46148 - SPRING 2015, Spring 2015

Instructor: Jaime Hernandez

Current Score : 83.4 / 92 Due : Monday, March 2 2015 11:00 AM CST

The due date for this assignment is past. Your work can be viewed below, but no changes can be made.

Important! Before you view the answer key, decide whether or not you plan to request an extension. Your Instructor may *not* grant you an extension if you have viewed the answer key. Automatic extensions are not granted if you have viewed the answer key.

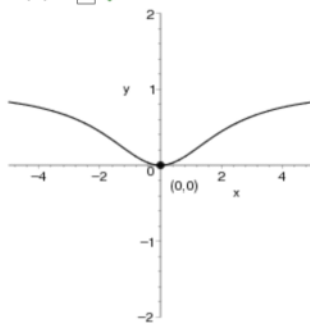
[View Key](#)

1. 1/1 points | [Previous Answers](#)LarCalc9 3.1.001.

Find the value of the derivative (if it exists) at the indicated extremum. (If an answer does not exist, enter DNE.)

$$f(x) = \frac{x^2}{x^2 + 5}$$

$$f'(0) = \boxed{0} \checkmark$$



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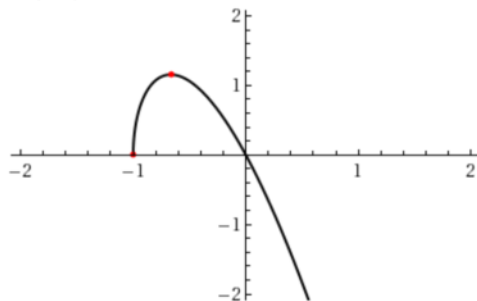
2. 1/1 points | [Previous Answers](#)LarCalc9 3.1.004.MI.

Find the value of the derivative (if it exists) at the indicated extremum. (If an answer does not exist, enter DNE.)

$$\left(-\frac{2}{3}, \frac{2\sqrt{3}}{3}\right)$$

$$f(x) = -3x\sqrt{x+1}$$

$$f'\left(-\frac{2}{3}\right) = \boxed{0} \checkmark$$



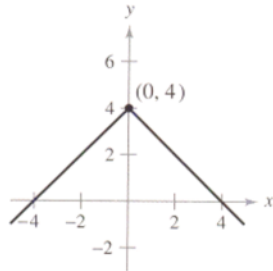
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3. 1/1 points | [Previous Answers](#)LarCalc9 3.1.006.

Find the value of the derivative (if it exists) at the indicated extremum. (If an answer does not exist, enter DNE.)

$$f(x) = 4 - |x|$$

$$f'(0) = \text{DNE} \quad \checkmark$$



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4. 1/1 points | [Previous Answers](#)LarCalc9 3.1.011.MI.

Find the critical numbers of the function. (Enter your answers as a comma-separated list.)

$$f(x) = x^8 - 8x^7$$

$$x = \quad \checkmark$$

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5. 1/1 points | [Previous Answers](#)LarCalc9 3.1.015.

Find the critical numbers of the function. (Enter your answers as a comma-separated list.)

$$(\sin(x))^2 + \cos(x) \quad 0 < x < 2\pi$$

$$x = \quad \checkmark$$

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6. 0/1 points | [Previous Answers](#)LarCalc9 3.1.016.

Find the critical numbers of the function. (Enter your answers as a comma-separated list.)

$$f(\theta) = 6\sec \theta + 3\tan \theta, \quad 0 < \theta < 2\pi$$

$$\theta = \quad \times$$

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7. 2/2 points | [Previous Answers](#)LarCalc9 3.1.021.

Locate the absolute extrema of the function on the closed interval.

$$f(x) = x^3 - \frac{3}{2}x^2, \quad [-4, 3]$$

minimum $(x, y) = (-4, -88)$ ✓

maximum $(x, y) = (3, 27/2)$ ✓

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8. 2/2 points | [Previous Answers](#)LarCalc9 3.1.023.

Locate the absolute extrema of the function on the closed interval.

$$y = 3x^{2/3} - 2x, \quad [-1, 1]$$

minimum $(x, y) = ($ ✓)

maximum $(x, y) = ($ ✓)

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9. 3/3 points | [Previous Answers](#)LarCalc9 3.1.025.

Locate the absolute extrema of the function on the closed interval.

$$g(t) = \frac{t^2}{t^2 + 5}, \quad [-5, 5]$$

minimum $(x, y) = (0, 0)$ ✓

maximum $(x, y) = (-5, 5/6)$ ✓ (smaller x-value)

maximum $(x, y) = (5, 5/6)$ ✓ (larger x-value)

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10. 2/2 points | [Previous Answers](#)LarCalc9 3.1.033.

Locate the absolute extrema of the function on the closed interval.

$$f(x) = \cos(\pi x), \quad \left[0, \frac{1}{2}\right]$$

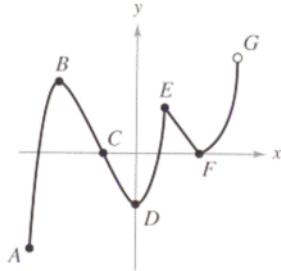
minimum $(x, y) =$
(✓)

maximum $(x, y) =$
(✓)

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11.0.4/2 points | [Previous Answers](#) LarCalc9 3.1.054.

Decide whether each labeled point is an absolute maximum or minimum, a relative maximum or minimum, or neither.



Which of the points are absolute maxima? (Select all that apply.)

- A
- B
- C
- D
- E
- F
- G
- none of these



Which of the points are absolute minima? (Select all that apply.)

- A
- B
- C
- D
- E
- F
- G
- none of these



Which of the points are relative maxima? (Select all that apply.)

- A
- B
- C
- D
- E
- F
- G
- none of these

✘

Which of the points are relative minima? (Select all that apply.)

- A
- B
- C
- D
- E
- F
- G
- none of these

✘

Which of the points are neither a maximum or minimum? (Select all that apply.)

- A
- B
- C
- D
- E
- F
- G
- none of these

✘

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12.2/2 points | [Previous Answers](#) LarCalc9 3.3.010.

Identify the open intervals on which the function is increasing or decreasing. (Select all that apply.)

$$h(x) = 3x - x^3$$

Increasing:

- $(-\infty, -1)$
- $(-1, 1)$
- $(1, \infty)$
- none of these



Decreasing:

- $(-\infty, -1)$
- $(-1, 1)$
- $(1, \infty)$
- none of these



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13.2/2 points | [Previous Answers](#) LarCalc9 3.3.011.

Identify the open intervals on which the function is increasing or decreasing. (Select all that apply.)

$$y = x\sqrt{64 - x^2}$$

Increasing:

- $(-\infty, -8)$
- $(-8, -4\sqrt{2})$
- $(-4\sqrt{2}, 4\sqrt{2})$
- $(4\sqrt{2}, 8)$
- $(8, \infty)$



Decreasing:

- $(-\infty, -8)$
- $(-8, -4\sqrt{2})$
- $(-4\sqrt{2}, 4\sqrt{2})$
- $(4\sqrt{2}, 8)$
- $(8, \infty)$



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14.2/2 points | [Previous Answers](#) LarCalc9 3.3.015.

Identify the open intervals on which the function is increasing or decreasing. (Select all that apply.)

$$f(x) = x + 2\sin(x), \quad 0 < x < 2\pi$$

Increasing:

- $\left(0, \frac{2\pi}{3}\right)$
- $\left(\frac{2\pi}{3}, \frac{4\pi}{3}\right)$
- $\left(\frac{4\pi}{3}, 2\pi\right)$
- none of these



Decreasing:

- $\left(0, \frac{2\pi}{3}\right)$
- $\left(\frac{2\pi}{3}, \frac{4\pi}{3}\right)$
- $\left(\frac{4\pi}{3}, 2\pi\right)$
- none of these



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15.4/4 points | [Previous Answers](#) LarCalc9 3.3.021.

Consider the following function.

$$f(x) = 6x^3 + 9x^2 - 108x$$

(a) Find the critical numbers of f . (Enter your answers as a comma-separated list.)

$$x = \boxed{-3, 2} \quad \checkmark$$

(b) Find the open intervals on which the function is increasing or decreasing. (Select all that apply.)

Increasing:

- $(-\infty, -3)$
 - $(-3, 2)$
 - $(2, \infty)$
 - $(-\infty, \infty)$
-

Decreasing:

- $(-\infty, -3)$
 - $(-3, 2)$
 - $(2, \infty)$
 - $(-\infty, \infty)$
-

(c) Apply the First Derivative Test to identify the relative extremum. (If an answer does not exist, enter DNE.)

$$\text{relative maximum } (x, y) = \boxed{(-3, 243)} \quad \checkmark$$

$$\text{relative minimum } (x, y) = \boxed{(2, -132)} \quad \checkmark$$

(d) Use a graphing utility to confirm your results.

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16.5/5 points | [Previous Answers](#) LarCalc9 3.3.036.

Consider the following function.

$$f(x) = \frac{x+9}{x^2}$$

(a) Find the critical numbers of f . (Enter your answers as a comma-separated list.)

$x =$ ✓

(b) Find the open intervals on which the function is increasing. (Select all that apply.)

Increasing:

- $(-\infty, -18)$
 - $(-18, 0)$
 - $(0, \infty)$
 - none of these
- ✓

Decreasing:

- $(-\infty, -18)$
 - $(-18, 0)$
 - $(0, \infty)$
 - none of these
- ✓

(c) Apply the First Derivative Test to identify the relative extremum. (If an answer does not exist, enter DNE.)

relative maximum $(x, y) =$ ✓)

relative minimum $(x, y) =$ ✓)

(d) Use a graphing utility to confirm your results.

Need Help?

17.4/4 points | [Previous Answers](#) LarCalc9 3.3.045.

Consider the function on the interval $(0, 2\pi)$.

$$f(x) = \sin(x) + \cos(x)$$

(a) Find the open intervals on which the function is increasing or decreasing. (Select all that apply.)

✓ Increasing:

- $\left(0, \frac{\pi}{4}\right)$
 $\left(\frac{\pi}{4}, \frac{5\pi}{4}\right)$
 $\left(\frac{5\pi}{4}, 2\pi\right)$
 none of these

✓ Decreasing:

- $\left(0, \frac{\pi}{4}\right)$
 $\left(\frac{\pi}{4}, \frac{5\pi}{4}\right)$
 $\left(\frac{5\pi}{4}, 2\pi\right)$
 none of these

(b) Apply the First Derivative Test to identify the relative extrema.

relative maximum $(x, y) =$

(✓)

relative minimum $(x, y) =$

(✓)

(c) Use a graphing utility to confirm your results.

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18.1.5/3 points | [Previous Answers](#) LarCalc9 3.3.067.

Consider the following graph.



(a) Use the graph of f' to identify the intervals on which f is increasing or decreasing. (Select all that apply.)

Increasing:

- $(-\infty, -1)$
- $(-1, 0)$
- $(0, 1)$
- $(1, \infty)$

✘

Decreasing:

- $(-\infty, -1)$
- $(-1, 0)$
- $(0, 1)$
- $(1, \infty)$

✘

(c) Estimate the values of x at which f has a relative maximum or minimum.

$x =$ ✓ (smallest x -value)

$x =$ ✓

$x =$ ✓ (largest x -value)

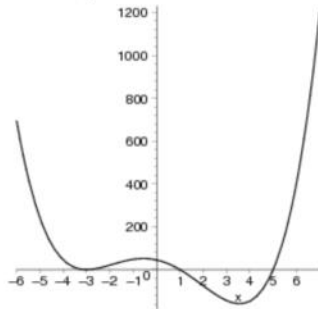
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19.3/3 points | [Previous Answers](#)LarCalc9 3.3.069.

Use the graph of f' to (a) identify the critical numbers of f , and (b) determine whether f has a relative maximum, a relative minimum, or neither at each critical number.

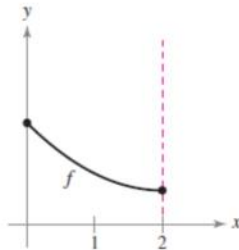


	critical number	relative maximum	relative minimum	neither
smallest value	-3 ✓	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/> ✓
	1 ✓	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/> ✓
largest value	5 ✓	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/> ✓

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20.1/1 points | [Previous Answers](#)LarCalc9 3.4.004.

The graph of f is shown. State the signs of f' and f'' on the interval $(0, 2)$.



$f' < 0$ ✓

$f'' > 0$ ✓

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26.2/2 points | [Previous Answers](#) LarCalc9 3.5.007.

Use a graphing utility to complete the table and estimate the limit as x approaches infinity. Then use a graphing utility to graph the function and estimate your answer graphically. (Round your answers to five decimal places. If you need to use ∞ or $-\infty$, enter INFINITY or -INFINITY, respectively.)



39.7/7 points | [Previous Answers](#) LarCalc9 3.6.015.MI.

Analyze and sketch a graph of the function. Find any intercepts, relative extrema, points of inflection, and asymptotes. (If an answer does not exist, enter DNE.)

$$f(x) = \frac{x^2 - 11x + 54}{x - 9}$$

intercept $(x, y) = ($)

relative minimum $(x, y) = ($)

relative maximum $(x, y) = ($)

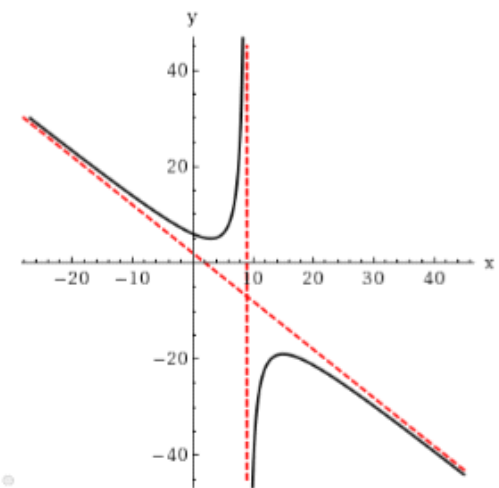
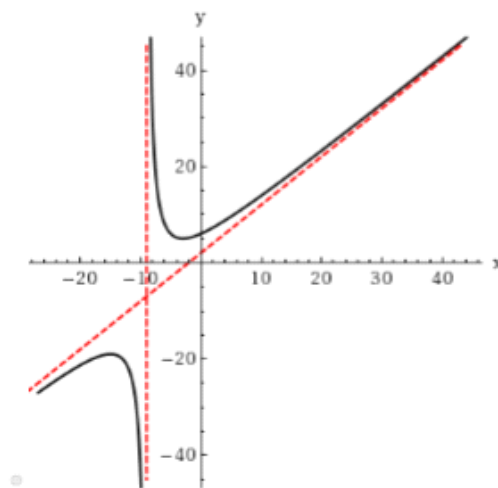
point of inflection $(x, y) = ($)

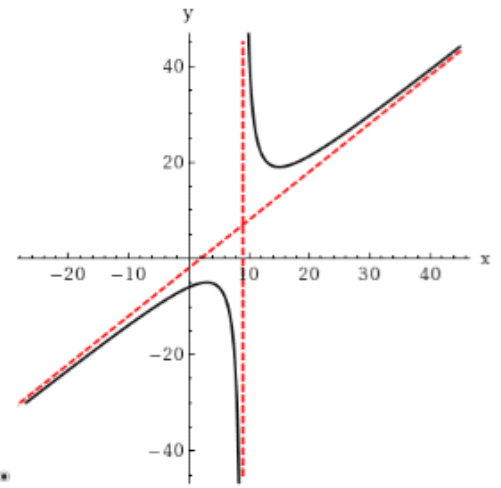
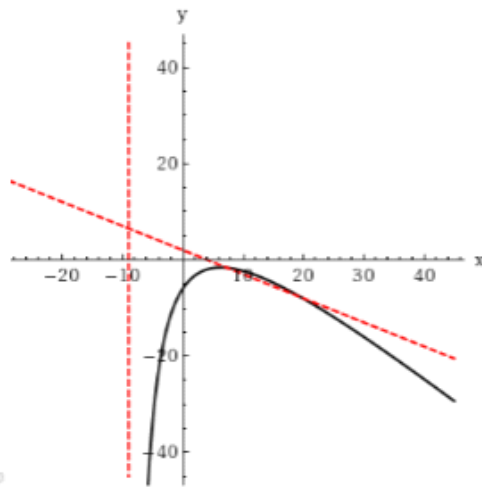
Find the equations of the asymptotes.

(vertical asymptote)

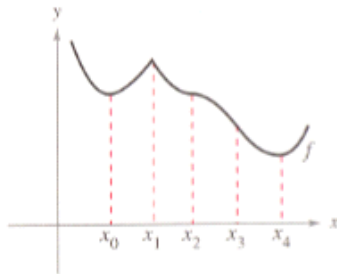
(slant asymptote)

Use a graphing utility to verify your results.





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40.0.5/3 points | [Previous Answers](#) LarCalc9 3.6.072.Identify the real numbers x_0 , x_1 , x_2 , x_3 and x_4 in the figure such that each of the following is true. (Select all that apply.)(a) $f'(x) = 0$

- x_0
- x_1
- x_2
- x_3
- x_4
- none of these

✘

(b) $f''(x) = 0$

- x_0
- x_1
- x_2
- x_3
- x_4
- none of these

✘

(c) $f'(x)$ does not exist.

- x_0
- x_1
- x_2
- x_3
- x_4
- none of these

✔

(d) f has a relative maximum.

- x_0
 - x_1
 - x_2
 - x_3
 - x_4
 - none of these
- ✘

(e) f has a point of inflection.

- x_0
 - x_1
 - x_2
 - x_3
 - x_4
 - none of these
- ✘

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Review Basic integration

Monday, April 27, 2015 5:12 PM

WebAssign
Review - Basic Integration (Homework)John Putkey
MATH 2414 - CALCULUS II - CRN 46148 - SPRING 2015, Spring 2015
Instructor: Jaime Hernandez

Current Score : 50 / 52 Due : Monday, March 2 2015 11:00 AM CST

The due date for this assignment is past. Your work can be viewed below, but no changes can be made.

Important! Before you view the answer key, decide whether or not you plan to request an extension. Your Instructor may *not* grant you an extension if you have viewed the answer key. Automatic extensions are not granted if you have viewed the answer key.

[View Key](#)1. 1/1 points | [Previous Answers](#)LarCalc9 4.1.007.

Find the general solution of the differential equation and check the result by differentiation. (Use C for the constant of integration.)

$$\frac{dy}{dx} = 3x^{1/4}$$

y =



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[Read It](#)[Watch It](#)[Chat About It](#)2. 1/1 points | [Previous Answers](#)LarCalc9 4.1.008.MI.

Find the general solution of the differential equation and check the result by differentiation. (Use C for the constant of integration.)

$$\frac{dy}{dx} = 6x^{-7}$$

y =



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[Read It](#)[Master It](#)[Chat About It](#)3. 1/1 points | [Previous Answers](#)LarCalc9 4.1.021.

Find the indefinite integral and check the result by differentiation. (Use C for the constant of integration.)

$$\int (x^{3/2} + 6x + 7) dx$$



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4. 1/1 points | [Previous Answers](#)LarCalc9 4.1.022.

Find the indefinite integral and check your result by differentiation. (Use C for the constant of integration.)

$$\int \left(\sqrt{x} + \frac{1}{4\sqrt{x}} \right) dx$$



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5. 1/1 points | [Previous Answers](#)LarCalc9 4.1.027.

Find the indefinite integral and check the result by differentiation. (Use C for the constant of integration.)

$$\int \frac{x+4}{\sqrt{x}} dx$$



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6. 1/1 points | [Previous Answers](#)LarCalc9 4.1.030.MI.

Find the indefinite integral and check the result by differentiation. (Use C for the constant of integration.)

$$\int (2t^2-5)^2 dt$$



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7. 1/1 points | [Previous Answers](#)LarCalc9 4.1.031.

Find the indefinite integral and check the result by differentiation. (Use C for the constant of integration.)

$$\int y^3 \cdot \sqrt{y} dy$$



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8. 1/1 points | [Previous Answers](#)LarCalc9 4.1.033.

Find the indefinite integral and check your result by differentiation. (Use C for the constant of integration.)

$$\int dv$$



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9. 1/1 points | [Previous Answers](#)LarCalc9 4.1.034.

Find the indefinite integral and check your result by differentiation. (Use C for the constant of integration.)

$$\int -3 dt$$



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10. 1/1 points | [Previous Answers](#)LarCalc9 4.1.035.

Find the indefinite integral and check the result by differentiation. (Use C for the constant of integration.)

$$\int (7 \cos(x) + 9 \sin(x)) dx$$



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11. 1/1 points | [Previous Answers](#)LarCalc9 4.1.039.

Find the indefinite integral and check the result by differentiation. (Use C for the constant of integration.)

$$\int (4 (\sec(\theta))^2 - 5 \sin(\theta)) d\theta$$



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12. 1/1 points | [Previous Answers](#) LarCalc9 4.1.043.MI.

Find the indefinite integral and check the result by differentiation. (Use C for the constant of integration.)

$$\int \frac{\cos x}{1 - \cos^2 x} dx$$

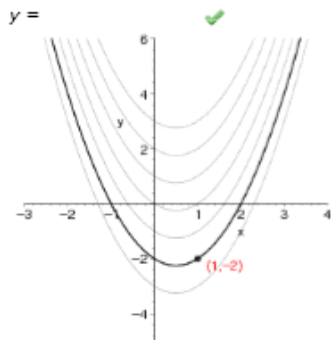


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13. 1/1 points | [Previous Answers](#) LarCalc9 4.1.049.

Find the equation of y , given the derivative and the indicated point on the curve.

$$\frac{dy}{dx} = 2x - 1$$



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14. 1/1 points | [Previous Answers](#) LarCalc9 4.1.057.MI.

Solve the differential equation.

$$f'(x) = 8x, \quad f(0) = 3$$

$f(x) =$



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15. 1/1 points | [Previous Answers](#) LarCalc9 4.1.062.

Find a function f that satisfies the conditions.

$$f''(x) = x^2, \quad f'(0) = 4, \quad f(0) = 6$$

$f(x) =$



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16. 1/1 points | [Previous Answers](#) LarCalc9 4.1.064.

Solve the differential equation.

$$f''(x) = \sin(x), \quad f'(0) = 9, \quad f(0) = 19$$

$f(x) =$



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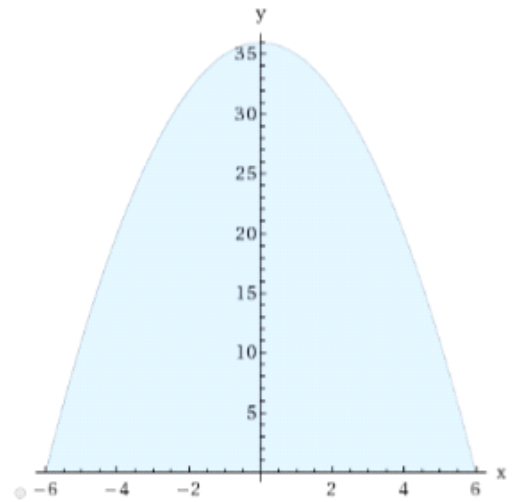
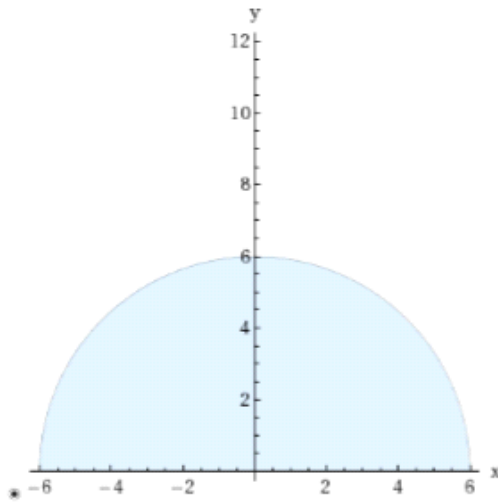
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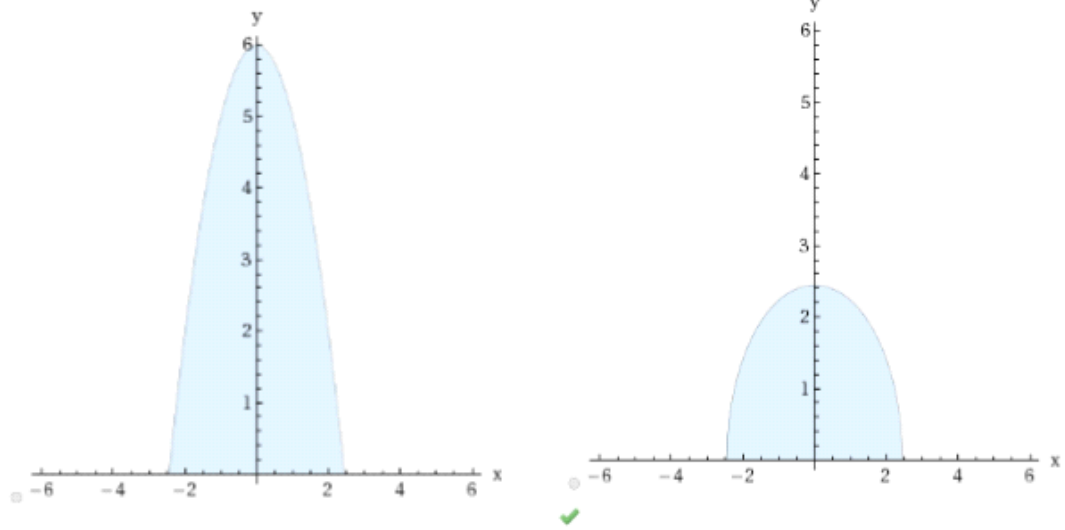
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17.1.5/1.5 points | [Previous Answers](#) LarCalc9 4.3.031.MI.

Sketch the region whose area is given by the definite integral.

$$\int_{-6}^6 \sqrt{36 - x^2} dx$$





Then use a geometric formula to evaluate the integral ($a > 0$, $r > 0$).

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18.1/1 points | [Previous Answers](#) LarCalc9 4.3.039.MI.

Evaluate the integral using the following values.

$$\int_1^6 x^3 dx = 260, \int_1^6 x dx = 10, \int_1^6 dx = 2$$

$$\int_1^6 \left(\frac{1}{2}x^3 - 4x + 5 \right) dx$$

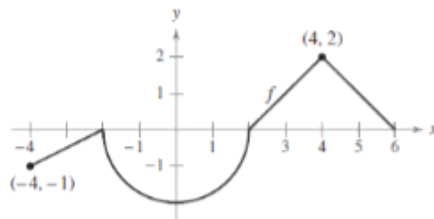
100 ✓

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20.6/6 points | [Previous Answers](#) LarCalc9 4.3.047.

The graph of f consists of line segments and a semicircle, as shown in the figure. Evaluate each definite integral by using geometric formulas.



(a) $\int_0^2 f(x) \, dx$

✓

(b) $\int_2^6 f(x) \, dx$

✓

(c) $\int_{-4}^2 f(x) \, dx$

✓

(d) $\int_{-4}^6 f(x) \, dx$

✓

(e) $\int_{-4}^6 |f(x)| \, dx$

✓

(f) $\int_{-4}^6 [f(x) + 2] \, dx$

✓

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21. 4/4 points | [Previous Answers](#) LarCalc9 4.3.049.

Consider the function f that is continuous on the interval $[-5, 5]$ and for which the following is true.

$$\int_0^5 f(x) dx = 9$$

Evaluate each integral.

(a) $\int_0^5 [f(x) + 2] dx$
 ✓

(b) $\int_{-2}^3 f(x + 2) dx$
 ✓

(c) $\int_{-5}^5 f(x) dx$ (f is even.)
 ✓

(d) $\int_{-5}^5 f(x) dx$ (f is odd.)
 ✓

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22. 1/1 points | [Previous Answers](#) LarCalc9 4.3.051.MI.

A function f is defined below. Use geometric formulas to find $\int_0^8 f(x) dx$.

$$f(x) = \begin{cases} 4, & x > 4 \\ -\frac{1}{2}x + 6, & x \leq 4 \end{cases}$$

✓


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25. 1/1 points | [Previous Answers](#) LarCalc9 4.4.015.

Evaluate the definite integral of the algebraic function. Use a graphing utility to verify your result.

$$\int_1^4 \frac{u-5}{\sqrt{u}} du$$

✓

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26. 1/1 points | [Previous Answers](#) LarCalc9 4.4.021.MI.

Evaluate the definite integral of the algebraic function. Use a graphing utility to verify your result.

$$\int_{-1}^0 (t^{1/3} - t^{2/3}) dt$$

✓

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27. -/1 points LarCalc9 4.4.023.

Evaluate the definite integral of the algebraic function. Use a graphing utility to verify your result.

$$\int_0^7 |2x - 7| dx$$

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28. 1/1 points | [Previous Answers](#) LarCalc9 4.4.027.MI.

Evaluate the definite integral of the trigonometric function. Use a graphing utility to verify your result.

$$\int_0^{\pi} (8 + \sin x) dx$$

✓

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29. 1/1 points | [Previous Answers](#) LarCalc9 4.4.029.

Evaluate the definite integral of the trigonometric function. Use a graphing utility to verify your result.

$$\int_0^{\pi/4} \frac{6 - 6(\sin(\theta))^2}{8(\cos(\theta))^2} d\theta$$

✓

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30. 1/1 points | [Previous Answers](#) LarCalc9 4.4.031.

Evaluate the definite integral of the trigonometric function. Use a graphing utility to verify your result.

$$\int_{-\pi/6}^{\pi/6} 7 (\sec(x))^2 dx$$



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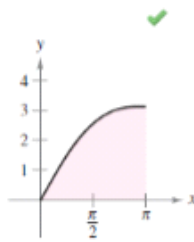
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31. 1/1 points | [Previous Answers](#) LarCalc9 4.4.038.MI.

Determine the area of the given region.

$$y = x + \sin x$$



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32. 1/1 points | [Previous Answers](#) LarCalc9 4.4.043.

Find the area of the region bounded by the graphs of the equations.

$$y = -x^2 + 6x, \quad y = 0$$

36

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33. 1/1 points | [Previous Answers](#) LarCalc9 4.5.016.

Find the indefinite integral and check the result by differentiation.

$$\int x^2(x^3 + 9)^8 dx$$

+ C

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38. 1/1 points | [Previous Answers](#) LarCalc9 4.5.076.MI.

Evaluate the definite integral. Use a graphing utility to verify your result.

$$\int_{-2}^4 x^2(x^3 + 8)^2 dx$$

41472 ✓

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39. 1/1 points | [Previous Answers](#) LarCalc9 4.5.079.

Evaluate the definite integral. Use a graphing utility to verify your result.

$$\int_0^6 \frac{1}{\sqrt{5x+6}} dx$$

4/5 ✓

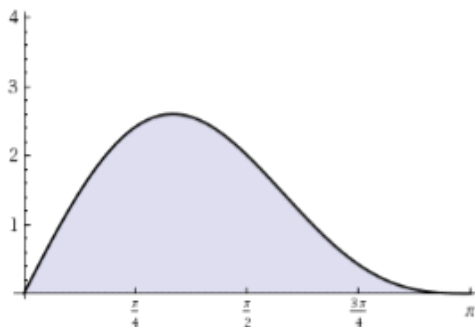
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40. 1/1 points | [Previous Answers](#) LarCalc9 4.5.093.

Find the area of the region. Use a graphing utility to verify your result.

$$y = 2 \sin(x) + \sin(2x)$$

4 ✓



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5.1

Monday, April 27, 2015 5:12 PM

WebAssign
Section 5.1 (Homework)

John Putkey
MATH 2414 - CALCULUS II - CRN 46148 - SPRING 2015, Spring 2015
Instructor: Jaime Hernandez

Current Score : 33.5 / 37 Due : Monday, March 2 2015 11:00 AM CST

The due date for this assignment is past. Your work can be viewed below, but no changes can be made.

Important! Before you view the answer key, decide whether or not you plan to request an extension. Your Instructor may not grant you an extension if you have viewed the answer key. Automatic extensions are not granted if you have viewed the answer key.

[View Key](#)

1. 1/1 points | [Previous Answers](#) LarCalc9 5.1.003.

Use a graphing utility to evaluate the logarithm by the methods given below. (Round your answers to four decimal places.)

$\ln(45)$

(a) Use the natural logarithm key.

✓

(b) Use the integration capabilities to evaluate the integral $\int_1^{45} \frac{1}{t} dt$.

✓

Need Help?

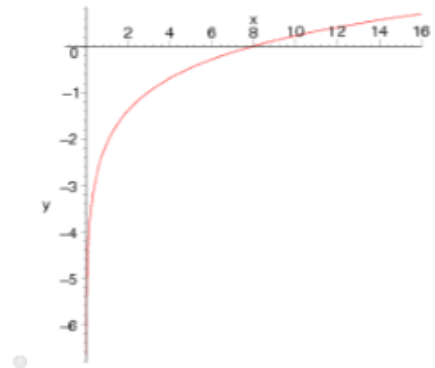
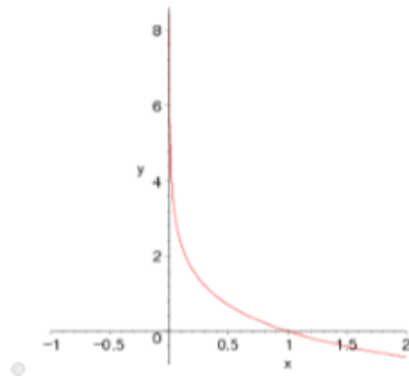
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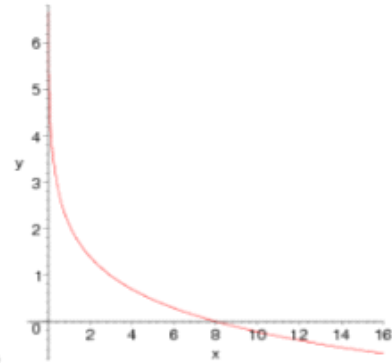
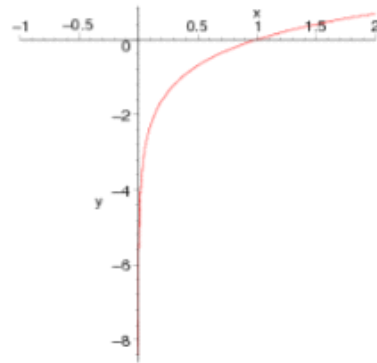
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2. 1/1 points | [Previous Answers](#)LarCalc9 5.1.008.

Match the function with its graph.

$$f(x) = -\ln(x/8)$$





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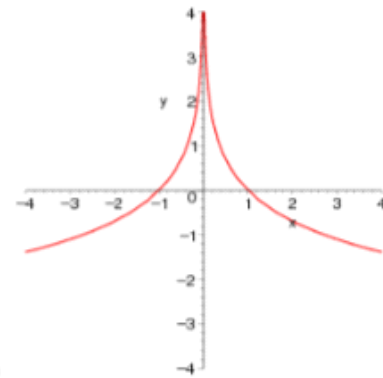
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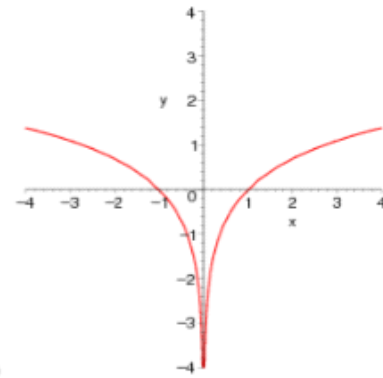
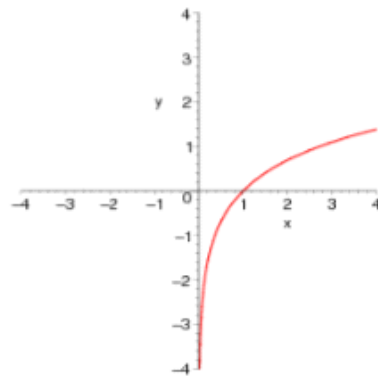
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3. 2/2 points | [Previous Answers](#)LarCalc9 5.1.014.

Sketch the graph of the function.

$$f(x) = \ln(|x|)$$





State the domain of the function.

- $x \neq 0$
- $x > 0$
- $x < 0$
- all reals



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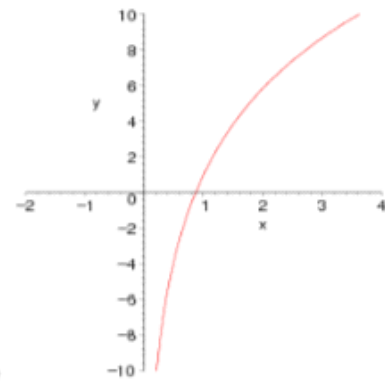
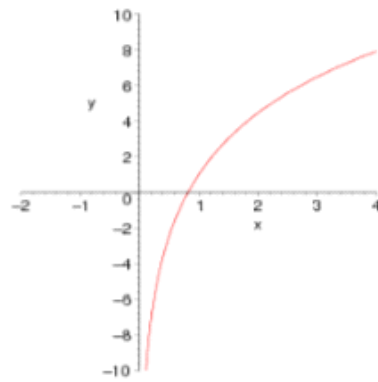
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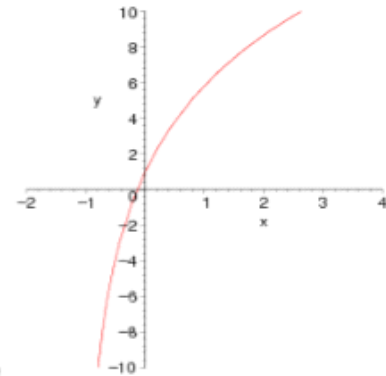
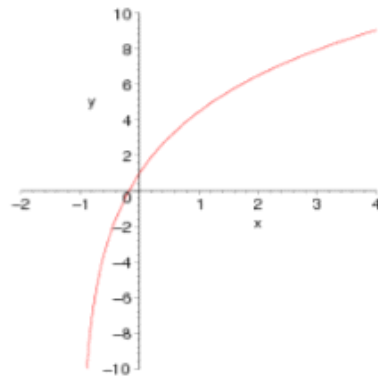
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4. 2/2 points | [Previous Answers](#)LarCalc9 5.1.016.

Sketch the graph of the function.

$$f(x) = 7 \ln(x) + 1$$





State the domain of the function.

- $0 \leq x < \infty$
- \mathbb{R}
- $x > 0$
- $x > -1$
- $-\infty < x < 0$

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5. 3/3 points | [Previous Answers](#)

Using the properties of logarithms and NOT a calculator, given that $\ln 2 \approx 0.6931$ and $\ln 3 \approx 1.0986$, approximate the logarithm. Then use a calculator to confirm your approximations.

(a) $\ln 0.25 \approx -1.3862$ ✓

[Tutorial](#)

(b) $\ln 54 \approx 3.9889$ ✓


[Tutorial](#)

(c) $\ln \sqrt[3]{12} \approx .8283$ ✓

[Tutorial](#)

(d) $\ln \frac{1}{72} \approx -4.2766$ ✓

[Tutorial](#)

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9. 1/1 points | [Previous Answers](#)LarCalc9 5.1.033.

Write the expression as the logarithm of a single quantity.

$$\frac{1}{3} (6 \ln(x + 5) + \ln(x) - \ln(x^2 - 2))$$



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10.1/1 points | [Previous Answers](#)LarCalc9 5.1.034.MI.

Write the expression as a logarithm of a single quantity.

$$6 [\ln x - \ln(x + 7) - \ln(x - 7)]$$



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11.1/1 points | [Previous Answers](#)LarCalc9 5.1.035.

Write the expression as the logarithm of a single quantity.

$$3 \ln(4) - \frac{1}{2} \ln(x^2 + 4)$$



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12.1/1 points | [Previous Answers](#)LarCalc9 5.1.039.

Find the limit. (If you need to use ∞ or $-\infty$, enter INFINITY or -INFINITY, respectively. Round your answer to four decimal places.)

$$\lim_{x \rightarrow 3^+} \ln(x - 3)$$

✓

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13.1/1 points | [Previous Answers](#)LarCalc9 5.1.041.

Find the limit. (If you need to use ∞ or $-\infty$, enter INFINITY or -INFINITY, respectively. Round your answer to four decimal places.)

$$\lim_{x \rightarrow 7^-} \ln(x^2(8 - x))$$

✓

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14.1/1 points | [Previous Answers](#)LarCalc9 5.1.042.

Find the limit. (If you need to use ∞ or $-\infty$, enter INFINITY or -INFINITY, respectively. Round your answer to four decimal places.)

$$\lim_{x \rightarrow 3^+} \ln\left(\frac{x}{\sqrt{x-2}}\right)$$

✓

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15.1/1 points | [Previous Answers](#)LarCalc9 5.1.043.MI.

Find an equation of the tangent line to the graph of the logarithmic function at the point (1, 0).

$$y = \ln x^5$$

$y =$ ✓

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19.1/1 points | [Previous Answers](#)LarCalc9 5.1.066.

Find the derivative of the function.

$$f(x) = \ln(x + \sqrt{6 + x^2})$$

$$f'(x) =$$



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20.1/1 points | [Previous Answers](#)LarCalc9 5.1.070.

Find the derivative of the function.

$$y = \ln(|\csc(6x)|)$$

$$y'(x) =$$



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21.1/1 points | [Previous Answers](#)LarCalc9 5.1.074.MI.

Find the derivative of the function.

$$f(x) = \ln \sqrt{9 + \cos^2 x}$$

$$f'(x) =$$



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22.1.5/1.5 points | [Previous Answers](#)LarCalc9 5.1.077.

Consider the following.

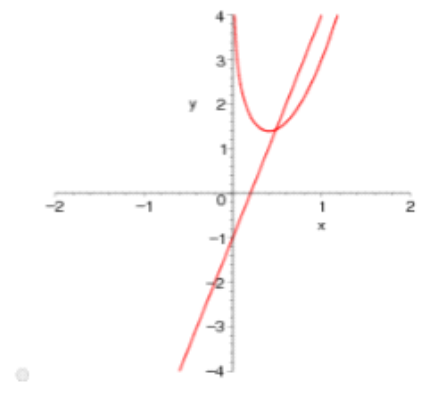
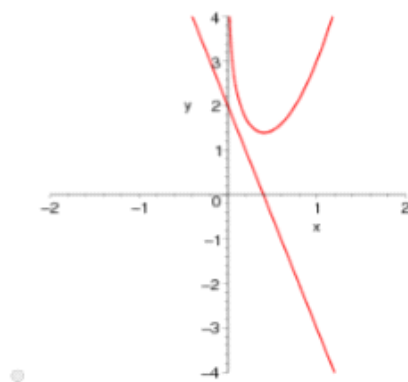
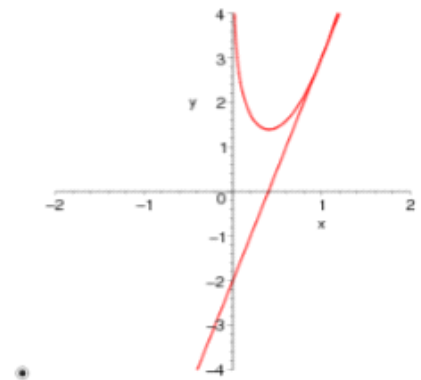
$$y = 3x^2 - \ln(x), \quad (1, 3)$$

(a) Find an equation of the tangent line to the graph of f at the given point.

y =



(b) Use a graphing utility to graph the function and its tangent line at the point.

(c) Use the *derivative* feature of a graphing utility to confirm your results.

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23.1/1 points | [Previous Answers](#)LarCalc9 5.1.084.MI.

Use implicit differentiation to find $\frac{dy}{dx}$.

$$\ln xy + 2x = 35$$

$$\frac{dy}{dx} =$$



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24.1.5/1.5 points | [Previous Answers](#)LarCalc9 5.1.087.

Use implicit differentiation to find an equation of the tangent line to the graph at the given point.

$$x + y - 1 = \ln(x^{10} + y^4), \quad (1, 0)$$

$$y =$$



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25.-/3.5 pointsLarCalc9 5.1.096.MI.

Locate the relative extremum and inflection points. Use a graphing utility to confirm your results.

$$y = 5x^2 \ln \frac{x}{2}$$

relative extremum $(x, y) = ((\text{No Response}))$

inflection point $(x, y) = ((\text{No Response}))$

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26.1.5/1.5 points | [Previous Answers](#)LarCalc9 5.1.101.

Use logarithmic differentiation to find dy/dx .

$$y = x\sqrt{x^2 + 8}, \quad x > 0$$

$$\frac{dy}{dx} =$$



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27.1.5/1.5 points | [Previous Answers](#)LarCalc9 5.1.104.

Use logarithmic differentiation to find dy/dx .

$$y = \sqrt{\frac{x^2 - 4}{x^2 + 4}}, \quad x > 2$$

$$\frac{dy}{dx} =$$



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28.1.5/1.5 points | [Previous Answers](#)LarCalc9 5.1.106.MI.

Use logarithmic differentiation to find dy/dx .

$$y = \frac{(x + 1)(x - 4)}{(x - 1)(x + 4)}, \quad x > 4$$

$$\frac{dy}{dx} =$$



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5.2

Monday, April 27, 2015 5:14 PM

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✓ + C

$$\int \frac{2 - x_3}{x_5} dx$$

Find the indefinite integral. (Remember to use $|u|$ where appropriate.)

5. 1\1 points | [Previous Answers](#) | Last Saved: 2/2/2008

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✓ + C

$$\int \frac{x - 8}{1} dx$$

Find the indefinite integral. (Remember to use $|u|$ where appropriate.)

1. 1\1 points | [Previous Answers](#) | Last Saved: 2/2/2008

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Important! Before you view the answer key, decide whether or not you plan to request an extension. Your instructor
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The due date for this assignment is past. Your work can be viewed below, but no changes can be made.

Current Score : 59 / 30 Due : Monday, March 5 2012 11:00 AM CST
 Instructor: Jaime Hernandez
 MATH 2414 - CALCULUS II - SPRING 2012, Spring 2012
 John Burke

Section 2.2 (Homework)
Wednesday

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+ C

$$\int \frac{\sqrt{25 - x^2}}{x} dx$$

Find the indefinite integral. (Remember to use $\ln(|u|)$ where appropriate.)

2. 1\1 points | [Previous Answers](#) | [Practice 2.5.013](#)

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+ C

$$\int \frac{x}{x^2 - 28} dx$$

Find the indefinite integral. (Remember to use $\ln(|u|)$ where appropriate.)

4. 1\1 points | [Previous Answers](#) | [Practice 2.5.011](#)

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+ C

$$\int \frac{x^2 + 8x}{x^2 + 8} dx$$

Find the indefinite integral. (Remember to use $\ln(|u|)$ where appropriate.)

3. 1\1 points | [Previous Answers](#) | [Practice 2.5.009 MI](#)

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$$\int \frac{x_5 + 2}{x_3 - 4x_5 + 9x - 50} dx$$

Find the indefinite integral. (Remember to use $\ln(|u|)$ where appropriate.)8. 1\1 points | [Previous Answers](#) | [Calculator 2.5.050](#)

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$$\int \frac{x - e}{5x_5 + 5x - 5} dx$$


Find the indefinite integral. (Remember to use $\ln(|u|)$ where appropriate.)7. 1\1 points | [Previous Answers](#) | [Calculator 2.5.01e](#)

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$$\int \frac{x_3 + 12x_5 + 9x + 1}{x_5 + 10x + 5} dx$$


Find the indefinite integral. (Remember to use $\ln(|u|)$ where appropriate.)e. 1\1 points | [Previous Answers](#) | [Calculator 2.5.013.M1](#)

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$$\int \sec\left(\frac{e}{x}\right) dx$$

Find the indefinite integral. (Remember to use $\ln(|u|)$ where appropriate.)


14.1\1 points | [Previous Answers](#) | Archived 2/5/034

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$$\int \csc(2x) dx$$

Find the indefinite integral. (Remember to use $\ln(|u|)$ where appropriate.)

13.1\1 points | [Previous Answers](#) | Archived 2/5/033


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$$\int \cot\frac{1}{\theta} d\theta$$

Find the indefinite integral. (Remember to use $\ln(|u|)$ where appropriate.)

12.1\1 points | [Previous Answers](#) | Archived 2/5/031 MI

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1.000

$$\int_4^0 \frac{5x + 1}{x} dx$$

to three decimal places.)

Evaluate the definite integral. Use a graphing utility to verify your result. (Round your answer

12.111 points | [Previous Answers](#) | Archived 2/2/2023

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y =



$$\frac{dy}{dx} = \frac{x}{x - 10}, \quad (-1, 4)$$

Solve the differential equation. (Remember to use $\ln(|u|)$ where appropriate.)

10.111 points | [Previous Answers](#) | Archived 2/2/2015

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+ C

$$\int \frac{\cot(t)}{(\csc(t))^5} dt$$

Find the indefinite integral. (Remember to use $\ln(|u|)$ where appropriate.)

12.111 points | [Previous Answers](#) | Archived 2/2/2028

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141.

$$\int_{0.1}^{0.5} (\csc 5\theta - \cot 5\theta) \, d\theta$$

to three decimal places.)

Evaluate the definite integral. Use a graphing utility to verify your result. (Round your answer

18.5 points | [Previous Answers](#)

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155.

$$\int_3^0 \frac{x+1}{x-1} \, dx$$

to three decimal places.)

Evaluate the definite integral. Use a graphing utility to verify your result. (Round your answer

18.1 points | [Previous Answers](#)

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6.2

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7.1

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