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← MAT2550, section ONL6FA_ONL6F, Summer 2 2021

Week 4 Math 2550 (Homework)

 INSTRUCTOR
Bradford Thompson
South College

Current Score

QUESTION	1	2	3	4	5	6	7	8	9	10	11	12	13
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POINTS -/3.84 -/3.84 -/3.84 -/3.84 -/3.84 -/3.84 -/3.84 -/3.84 -/3.84 -/3.84 -/3.84 -/3.84 -/3.84 -/3.84

TOTAL SCORE

-/99.99000000 0.0%

Due Date

TUE, AUG 17, 2021

11:59 PM EDT

Request Extension

Description		Assignment Submission & Scoring
		Assignment Submission For this assignment, you submit answers by questions. You are required to use a new randomization after every 3 question submissions. Assignment Scoring Your best submission for each question part is used for your score.

1. [-/3.84 Points]

DETAILS

LARPCALC10 3.1.008. 0/15 Submissions Used

MY NOTES

ASK YOUR TEACHER

Evaluate the function at the given value of x . Round your result to three decimal places.

Function	Value
$f(x) = 2.8^x$	$x = -\pi$
$f(-\pi) =$	

Need Help?

Read It

Watch It

2. [-/3.84 Points]

DETAILS

LARPCALC10 3.1.010. 0/15 Submissions Used

MY NOTES

ASK YOUR TEACHER

Evaluate the function at the given value of x . Round your result to three decimal places.

Function	Value
$f(x) = \left(\frac{6}{7}\right)^{3x}$	$x = \frac{5}{6}$
$f\left(\frac{5}{6}\right) =$	

Need Help?

Read It

Watch It

3. [-/3.84 Points]

DETAILS

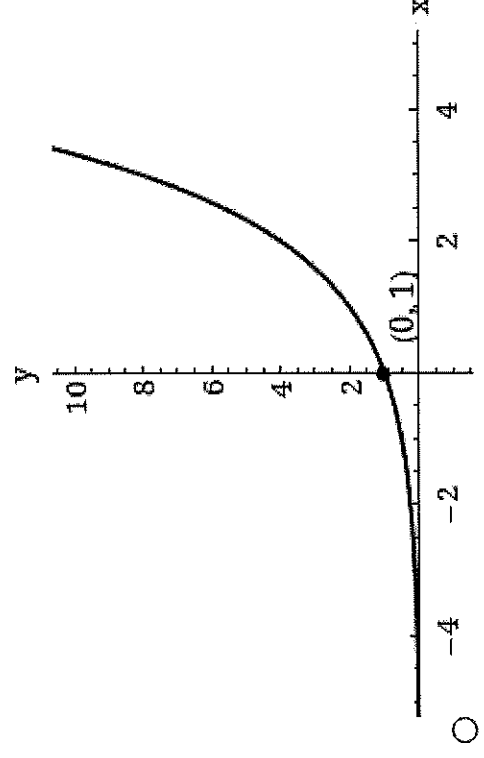
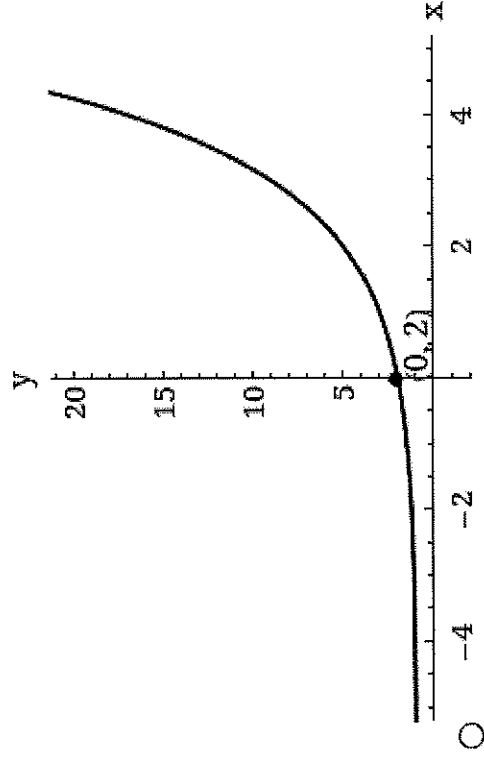
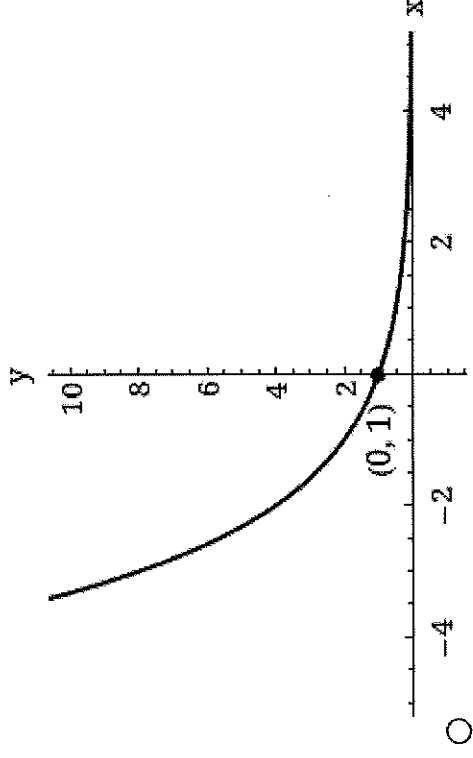
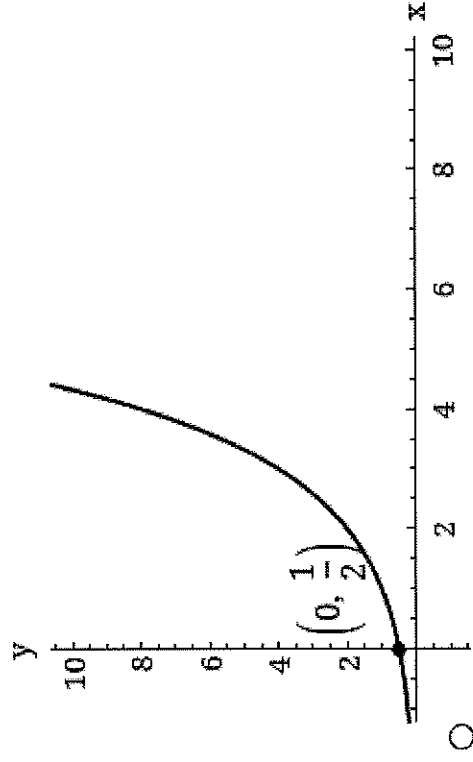
LARPCALC10 3.1.014. 0/15 Submissions Used

MY NOTES

ASK YOUR TEACHER

Match the exponential function with its graph.

$$f(x) = 2^x + 1$$



Need Help?



4. [-/3.84 Points]

DETAILS

LARPCALC10 3.1.018. 0/15 Submissions Used

MY NOTES

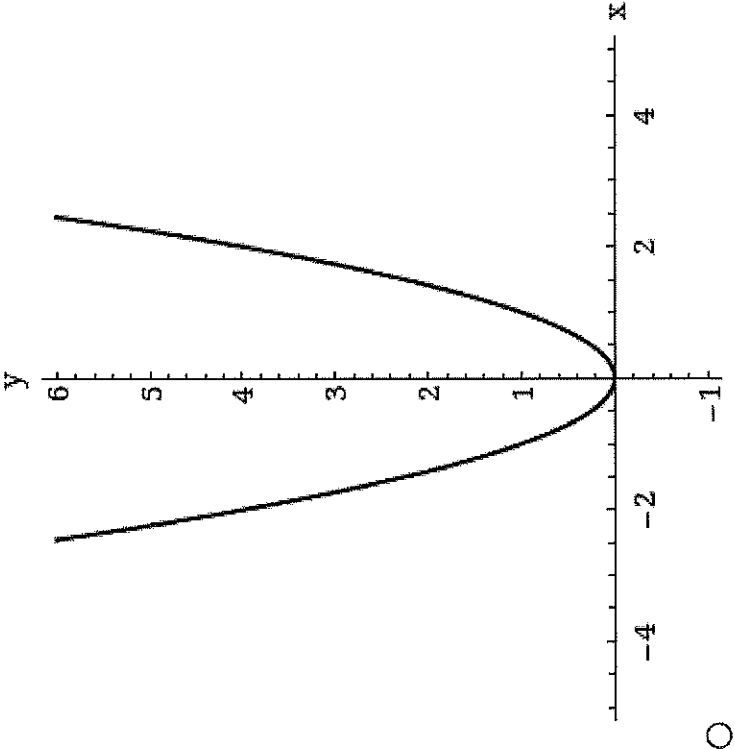
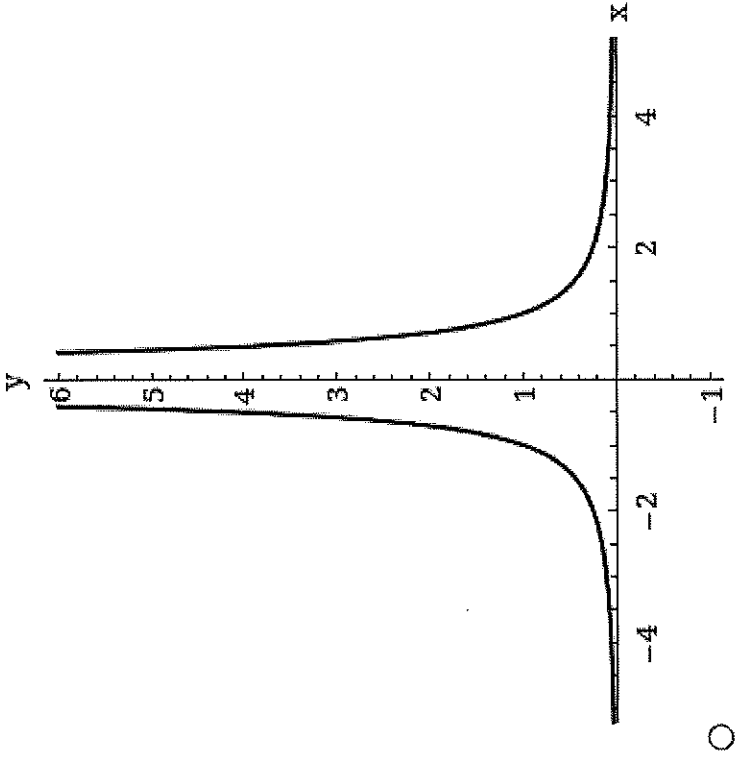
ASK YOUR TEACHER

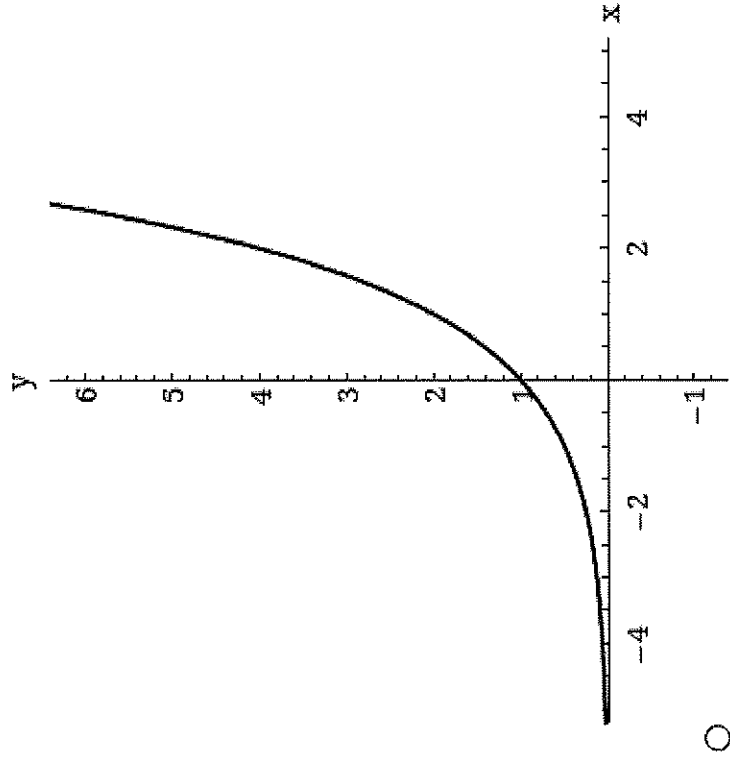
Use a graphing utility to construct a table of values for the function. (Round your answers to three decimal places.)

$f(x) = 2^{-x}$

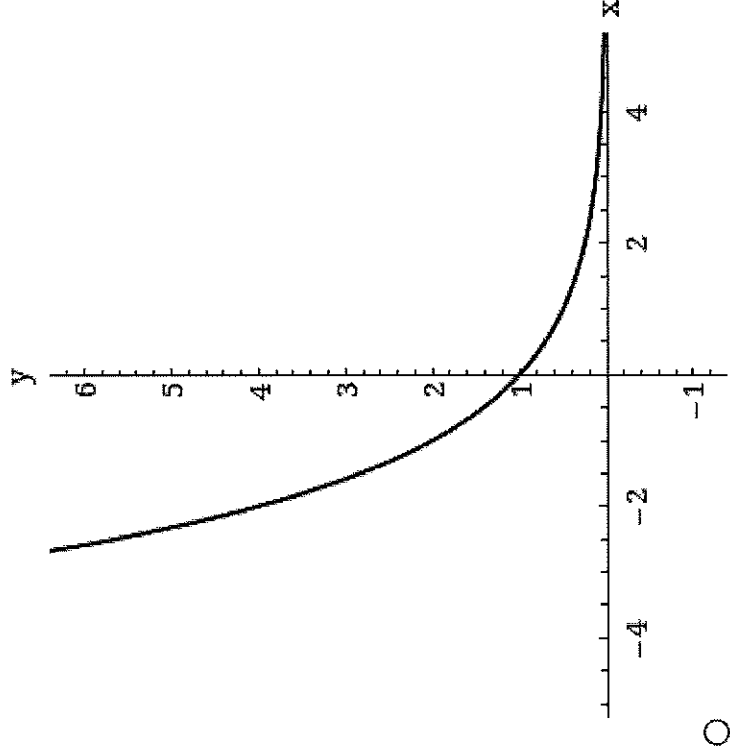
x	-2	-1	0	1	2
f(x)					

Sketch the graph of the function.



☐

Need Help?

☐

5. [-/3.84 Points]

DETAILS

LARPCALC10 3.1.021. 0/15 Submissions Used

MY NOTES

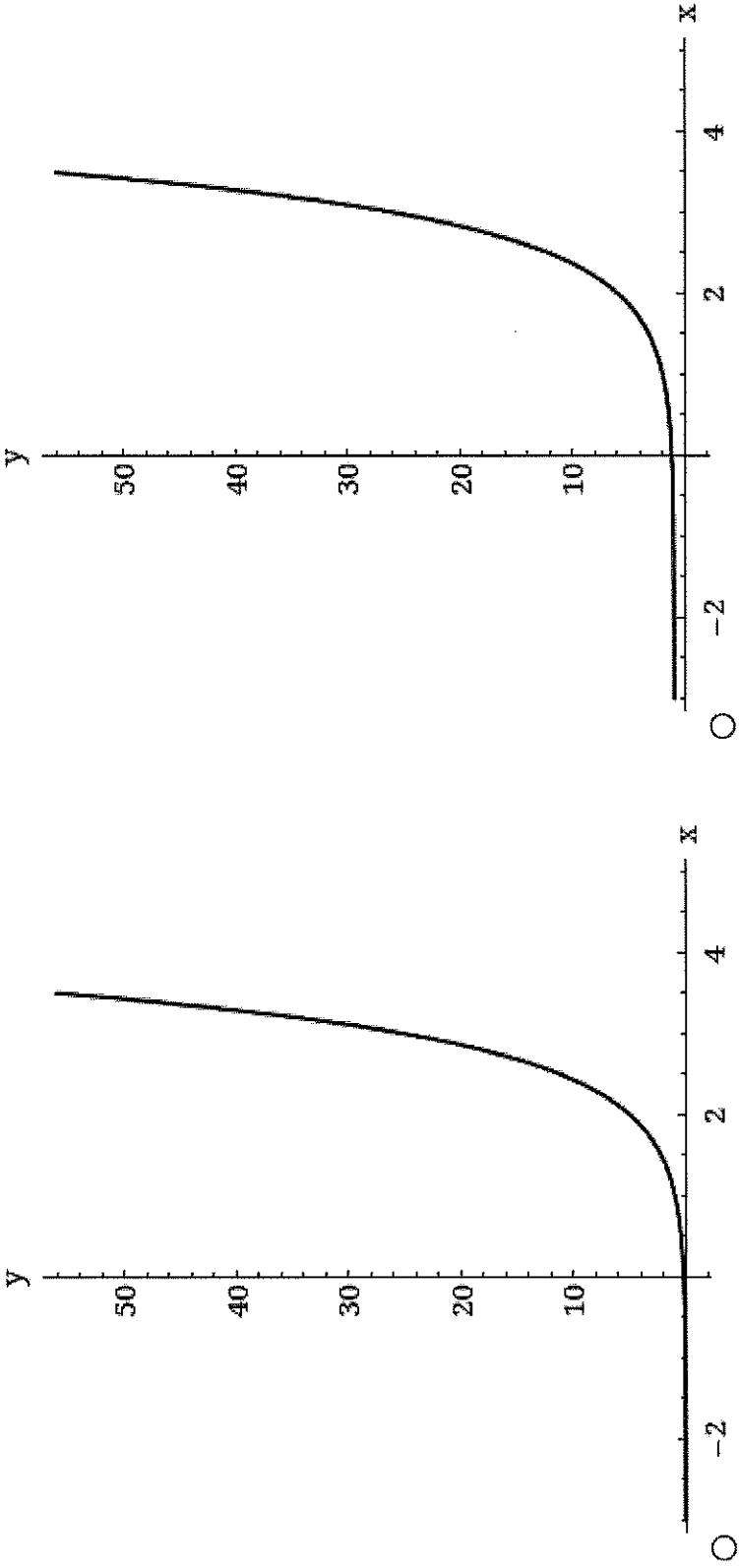
ASK YOUR TEACHER

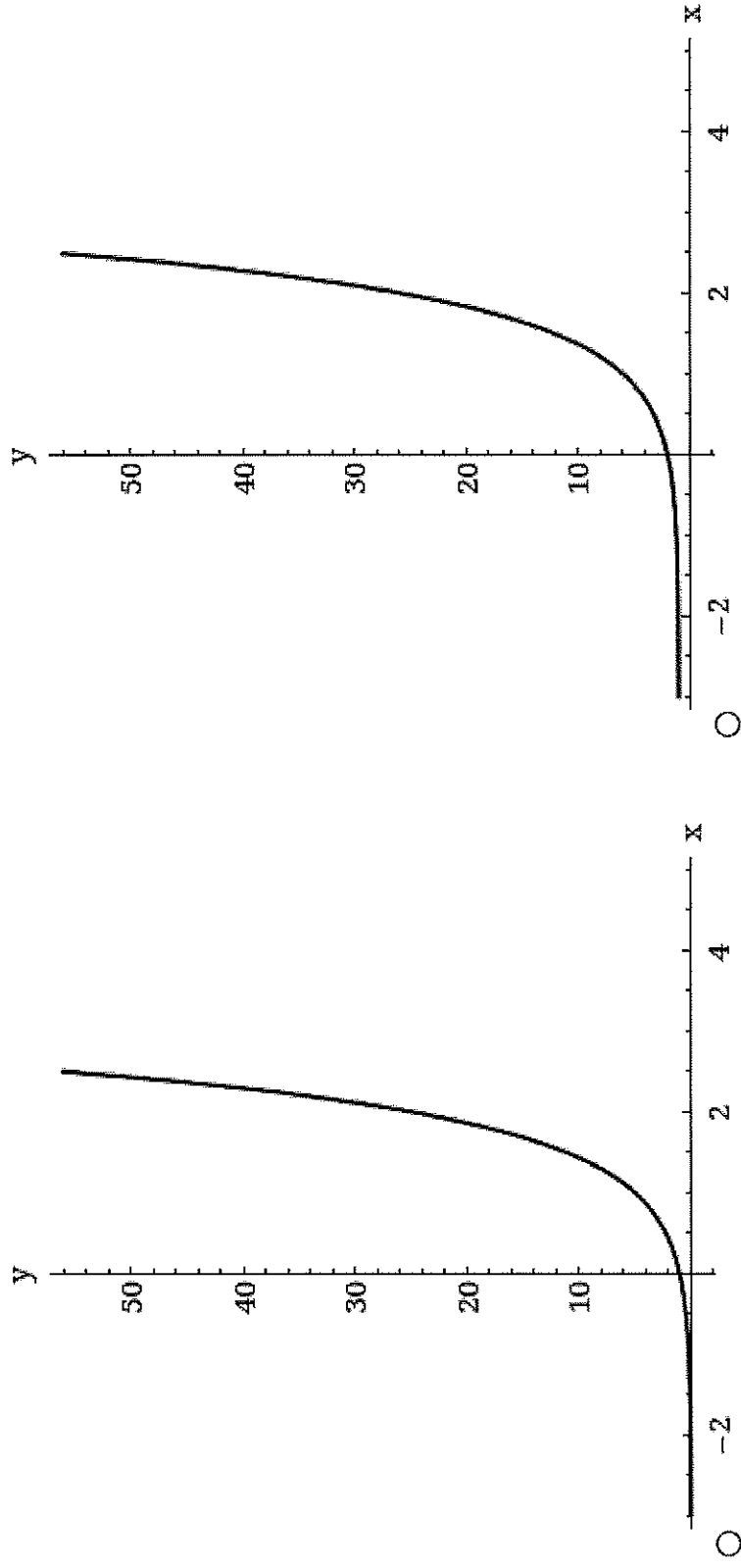
Use a graphing utility to construct a table of values for the function. (Round your answers to three decimal places.)

$f(x) = 5^x - 1$

x	-1	0	1	2	3
f(x)					

Sketch the graph of the function.





Need Help?

Read It

6. [-/3.84 Points]

DETAILS

LARPCALC10 3.1.025. 0/15 Submissions Used

MY NOTES

ASK YOUR TEACHER

Use the One-to-One Property to solve the equation for x.

$$2^x + 1 = 4$$

x =

Need Help?

Read It

7. [-/3.84 Points]

DETAILS

LARPCALC10 3.1.027. 0/15 Submissions Used

MY NOTES

ASK YOUR TEACHER

Use the One-to-One Property to solve the equation for x.

$$\left(\frac{1}{4}\right)^x = 64$$

x =

Need Help?

Read It

8. [-/3.84 Points]

DETAILS

LARPCALC10 3.2.008. 0/15 Submissions Used

MY NOTES

ASK YOUR TEACHER

Write the logarithmic equation in exponential form. For example, the exponential form of $\log_5 25 = 2$ is $5^2 = 25$.

$$\log_8 \frac{1}{512} = -3$$

Need Help?

Read It

9. [-/3.84 Points]

DETAILS

LARPCALC10 3.2.015. 0/15 Submissions Used

MY NOTES

ASK YOUR TEACHER

Evaluate the logarithm at the given value of x without using a calculator.

Function Value

$$f(x) = \log_2(x) \quad x = 16$$

Need Help?

Read It

10. [-/3.84 Points]

DETAILS

LARPCALC10 3.2.020. 0/15 Submissions Used

MY NOTES

ASK YOUR TEACHER

Evaluate the logarithm at the given value of x without using a calculator.

Function

Value

$$g(x) = \log_b(x) \quad x = \sqrt{b}$$

Need Help?

Read It

Watch It

11. [-/3.84 Points]

DETAILS

LARPCALC10 3.2.022. 0/15 Submissions Used

MY NOTES

ASK YOUR TEACHER

Use a calculator to evaluate $f(x) = \log(x)$ at the given value of x . Round your result to three decimal places.

$$x = \frac{1}{350}$$

Need Help?

Read It

Watch It

12. [-/3.84 Points]

DETAILS

LARPCALC10 3.2.029. 0/15 Submissions Used

MY NOTES

ASK YOUR TEACHER

Use the One-to-One Property to solve the equation for x . (Enter your answers as a comma-separated list.)

$$\log_5(x + 1) = \log_5(7)$$

 $x =$

Need Help?

Read It

13. [-/3.84 Points]

DETAILS

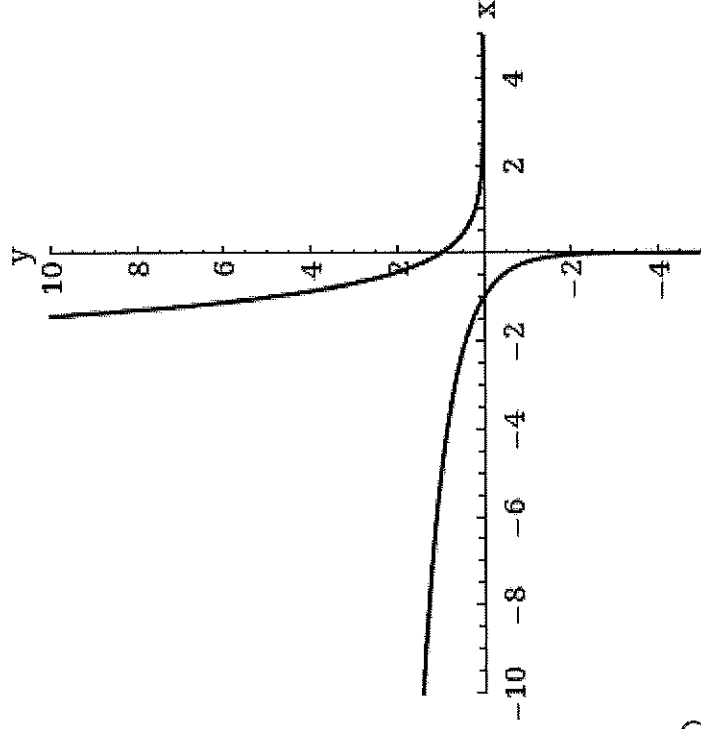
LARPCALC10 3.2.034. 0/15 Submissions Used

MY NOTES

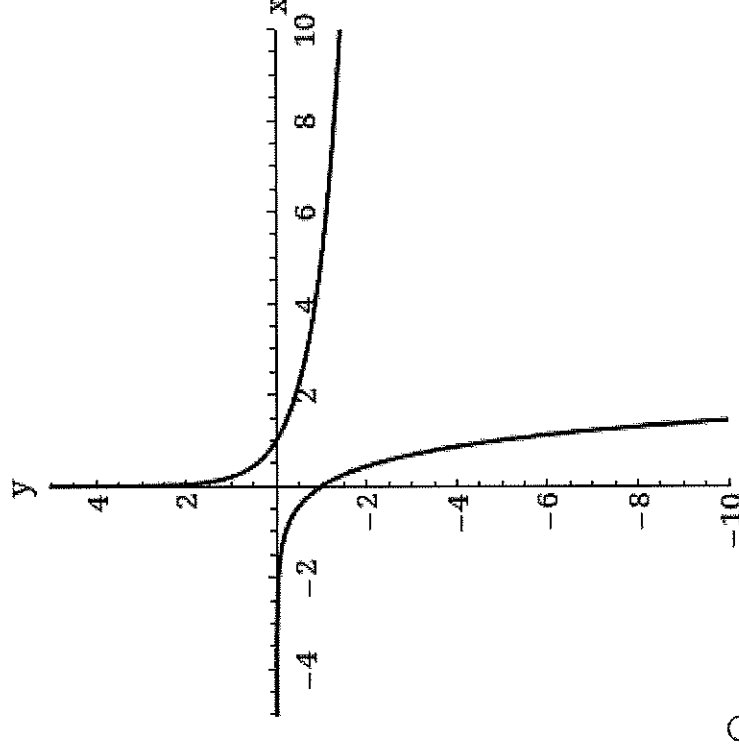
ASK YOUR TEACHER

Sketch the graphs of f and g in the same coordinate plane.

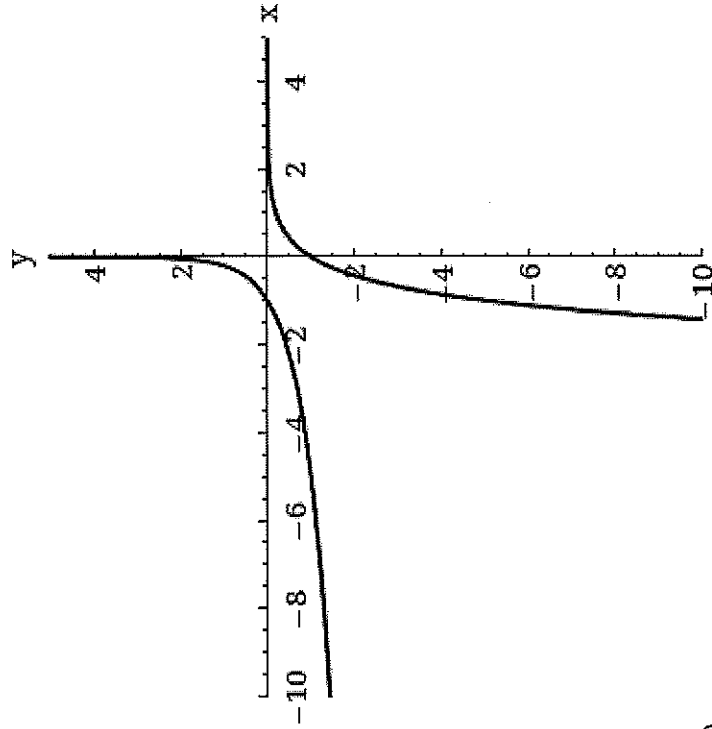
$$f(x) = 5^x, g(x) = \log_5 x$$



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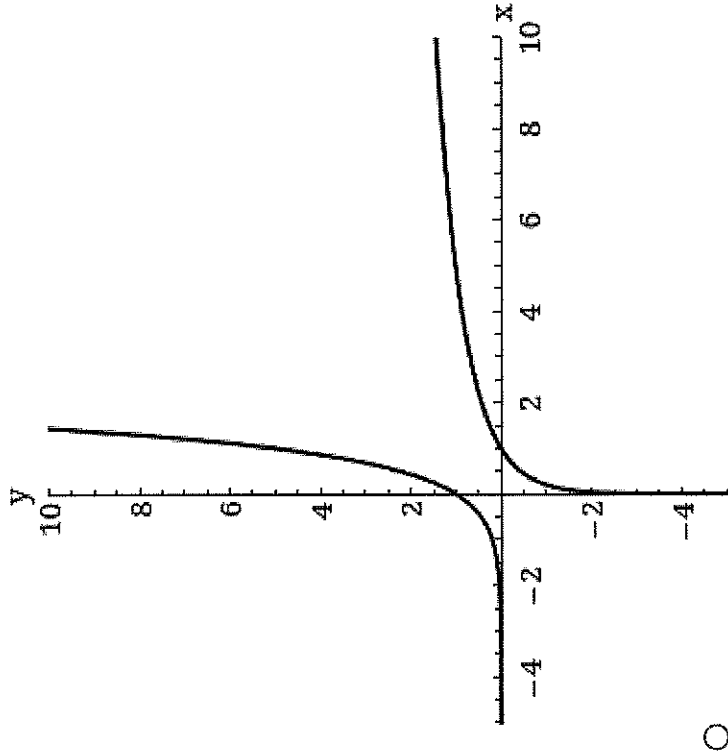
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○

Read It

Need Help?



○

14. [-/3.84 Points]

DETAILS

LARPCALC10 3.2.031. 0/15 Submissions Used

MY NOTES

ASK YOUR TEACHER

Use the One-to-One Property to solve the equation for x . (Enter your answers as a comma-separated list.)

$$\log(11) = \log(x^2 + 7)$$

 $x =$

Need Help?

Read It

15. [-/3.84 Points]

DETAILS

LARPCALC10 3.3.005. 0/15 Submissions Used

MY NOTES

ASK YOUR TEACHER

Rewrite the logarithm as a ratio of common logarithms and natural logarithms.

$$\log_9(45)$$

(a) common logarithms

(b) natural logarithms

Need Help?

Read It

Watch It

16. [-/3.84 Points]

DETAILS

LARPCALC10 3.3.009. 0/15 Submissions Used

MY NOTES

ASK YOUR TEACHER

Evaluate the logarithm using the change-of-base formula. Round your result to three decimal places.

$$\log_3(17)$$

Need Help?

Read It

17. [-/3.84 Points]

DETAILS

LARPCALC10 3.3.013. 0/15 Submissions Used

MY NOTES

ASK YOUR TEACHER

Use the properties of logarithms to write the logarithm in terms of $\log_7(3)$ and $\log_7(5)$.

$$\log_7(15)$$

Need Help?

Read It

18. [-/3.84 Points]

DETAILS

LARPCALC10 3.3.015. 0/15 Submissions Used

MY NOTES

ASK YOUR TEACHER

Use the properties of logarithms to write the logarithm in terms of $\log_2(3)$ and $\log_2(5)$.

$$\log_2\left(\frac{3}{25}\right)$$

Need Help?

Read It

19. [-/3.84 Points]

DETAILS

LARPCALC10 3.3.020. 0/15 Submissions Used

MY NOTES

ASK YOUR TEACHER

Find the exact value of the logarithmic expression without using a calculator. (If not possible, enter IMPOSSIBLE.)

$$\log_4 \frac{1}{64}$$

Need Help?

Read It

Watch It

20. [-/3.84 Points]

DETAILS

LARPCALC10 3.3.032. 0/15 Submissions Used

MY NOTES

ASK YOUR TEACHER

Find the exact value of the logarithmic expression without using a calculator. (If not possible, enter IMPOSSIBLE.)

$$\log_{27}(81)$$

Need Help?

Read It

Watch It

21. [-/3.84 Points]

DETAILS

LARPCALC10 3.4.008.MI. 0/15 Submissions Used

MY NOTES

ASK YOUR TEACHER

Solve for x.

$$\left(\frac{1}{4}\right)^x = 64$$

x =

Need Help?

Read It

Watch It

Master It

22. [-/3.84 Points]

DETAILS

LARPCALC10 3.4.011. 0/15 Submissions Used

MY NOTES

ASK YOUR TEACHER

Solve for x. (Round your answer to three decimal places.)

$$e^x = 10$$

x =

Need Help?

Read It

23. [-/3.84 Points]

DETAILS

LARPCALC10 3.4.015. 0/15 Submissions Used

MY NOTES

ASK YOUR TEACHER

Solve for x.

$$\log_3 x = 2$$

x =

Need Help?

Read It

24. [-/3.84 Points]

DETAILS

LARPCALC10 3.4.023. 0/15 Submissions Used

MY NOTES

ASK YOUR TEACHER

Solve the exponential equation algebraically. Approximate the result to three decimal places. (Enter your answers as a comma-separated list.)

$$e^x - 6 = 35$$

 $x =$

Need Help?

Read It

25. [-/3.84 Points]

DETAILS

LARPCALC10 3.4.033. 0/15 Submissions Used

MY NOTES

ASK YOUR TEACHER

Solve the exponential equation algebraically. Approximate the result to three decimal places. (Enter your answers as a comma-separated list.)

$$3 - 7e^x = -4$$

 $x =$

Need Help?

Read It

26. [-/3.99 Points]

DETAILS

LARPCALC10 3.4.035. 0/15 Submissions Used

MY NOTES

ASK YOUR TEACHER

Solve the exponential equation algebraically. Approximate the result to three decimal places. (Enter your answers as a comma-separated list.)

$$3(7^{5x} - 6) - 8 = 2$$

 $x =$

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