



Home My Assignments Grades
Communication Calendar

← MAT2550, section ONL6FA_ONL6F, Summer 2 2021

Week 6 Math 2550 (Homework)

INSTRUCTOR

Bradford Thompson
South College

Current Score

QUESTION

1

2

3

4

5

6

7

8

9

10

11

12

13

POINTS

-/3.57

-/3.57

-/3.57

-/3.57

-/3.57

-/3.57

-/3.57

-/3.57

-/3.57

-/3.57

-/3.57

-/3.57

-/3.57

TOTAL SCORE

-/100

0.0%

Due Date

TUE, AUG 31, 2021
11:59 PM EDT



Request Extension

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. [-/3.57 Points]

DETAILS

LARPCALC10 4.5.003. 0/15 Submissions Used

MY NOTES

ASK YOUR TEACHER

Fill in the blank.

For the function $y = a \sin(bx - c)$, $\frac{c}{b}$ represents the --Select-- of one cycle of the graph of the function.

Need Help?

Read It

Watch It

2. [-/3.57 Points]

DETAILS

LARPCALC10 4.5.006. 0/15 Submissions Used

MY NOTES

ASK YOUR TEACHER

Find the period and amplitude.

$$y = 4 \cos 6x$$

period

amplitude

Need Help?

Read It

Watch It

3. [-/3.57 Points]

DETAILS

LARPCALC10 4.5.012.MI. 0/15 Submissions Used

MY NOTES

ASK YOUR TEACHER

Find the period and amplitude.

$$y = -\frac{2}{5} \cos(14\pi x)$$

period

amplitude

Need Help?

Read It

Watch It

Master It

4. [-/3.57 Points]

DETAILS

LARPCALC10 4.5.017. 0/15 Submissions Used

MY NOTES

ASK YOUR TEACHER

Describe the relationship between the graphs of f and g . Consider amplitude, period, and shifts.

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

$$g(x) = \sin(x - 3\pi)$$

- ☐ The graph of g is a horizontal shift of the graph of f 3π units to the right.
- ☐ The graph of g has a period 3π units longer than the period of the graph of f .
- ☐ The graph of g is a vertical shift of the graph of f 3π units downward.
- ☐ The graph of g has an amplitude 3π times that of the graph of f .
- ☐ The graph of g is identical to the graph of f .

Need Help?

Read It

5. [-/3.57 Points]

DETAILS

LARPCALC10 4.5.019. 0/15 Submissions Used

MY NOTES

ASK YOUR TEACHER

Describe the relationship between the graphs of f and g . Consider amplitude, period, and shifts.

$$f(x) = \sin 8x$$

$$g(x) = 5 + \sin 8x$$

- ☐ The graph of g is a horizontal shift on the graph of f to the right by 5 units.
- ☐ The graph of g is a horizontal shift on the graph of f to the left by 5 units.
- ☐ The graph of g is a vertical shift on the graph of f downward by 5 units.
- ☐ The graph of g is a vertical shift on the graph of f upward by 5 units.
- ☐ The graph of g has a period 8 units shorter than the period of the graph of f .

Need Help?

Read It

6. [-/3.57 Points]

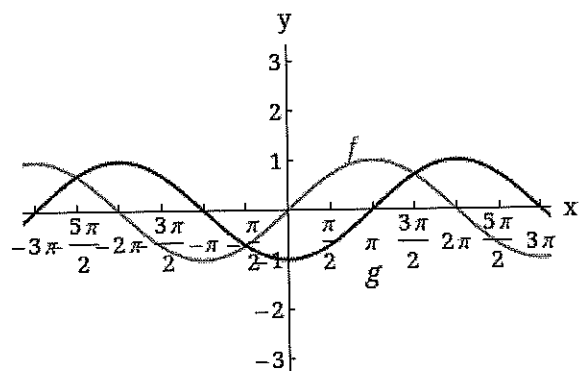
DETAILS

LARPCALC10 4.5.023. 0/15 Submissions Used

MY NOTES

ASK YOUR TEACHER

Describe the relationship between the graphs of f and g . Consider amplitude, period, and shifts.



- ☐ The amplitude of g is 3 times the amplitude of f .
- ☐ The period of g is 3 times the period of f .
- ☐ The graphs of f and g differ only in their phase shift.
- ☐ The graph of g is a vertical shift of the graph of f upwards by 3 units.
- ☐ The graph of g is a reflection of the graph of f over the x -axis.

Need Help?

Read It

7. [-/3.57 Points]

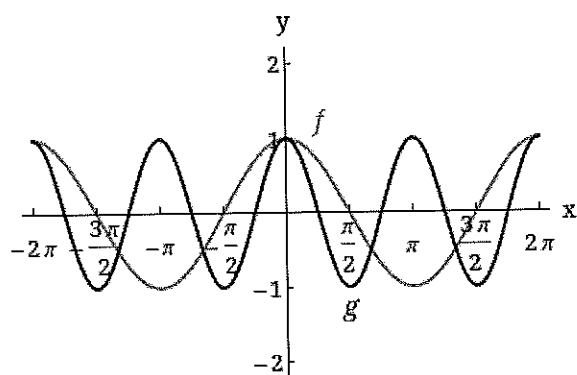
DETAILS

LARPCALC10 4.5.022. 0/15 Submissions Used

MY NOTES

ASK YOUR TEACHER

Describe the relationship between the graphs of f and g . Consider amplitude, period, and shifts.



- ☐ The graphs of f and g differ only in their phase shift.
- ☐ The amplitude of g is 2 times the period of f .
- ☐ The period of g is one-half the period of f .
- ☐ The period of g is 2 times the period of f .
- ☐ The amplitude of g is one-half the amplitude of f .

Need Help?

Read It

Watch It

8. [-/3.57 Points]

DETAILS

LARPCALC10 4.5.025. 0/15 Submissions Used

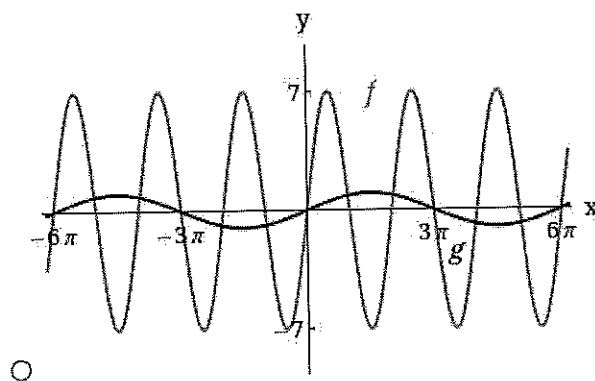
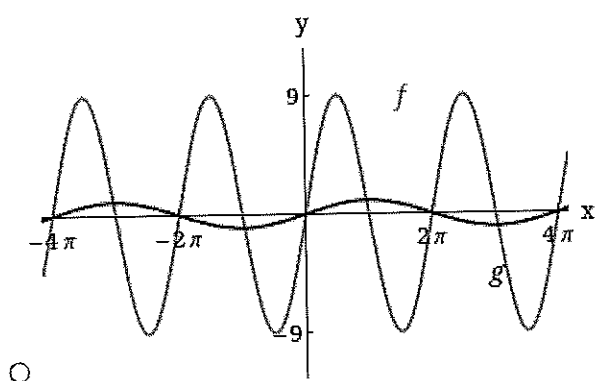
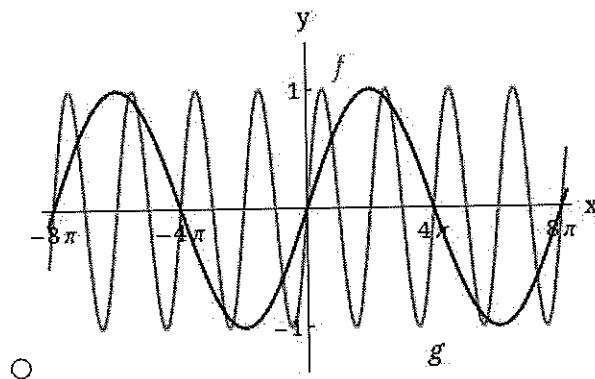
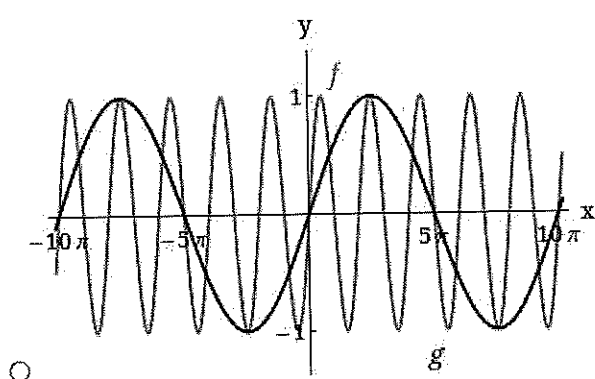
MY NOTES

ASK YOUR TEACHER

Sketch the graphs of f and g in the same coordinate plane. (Include two full periods.)

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

$$g(x) = \sin \frac{x}{4}$$



Need Help?

Read It

Watch It

9. [-/3.57 Points]

DETAILS

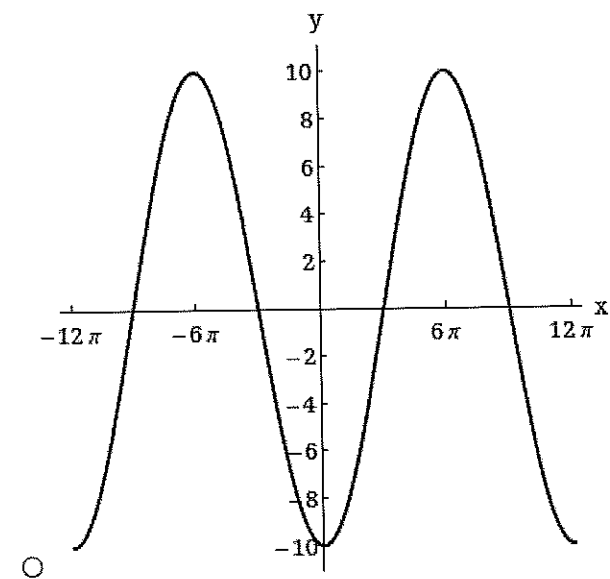
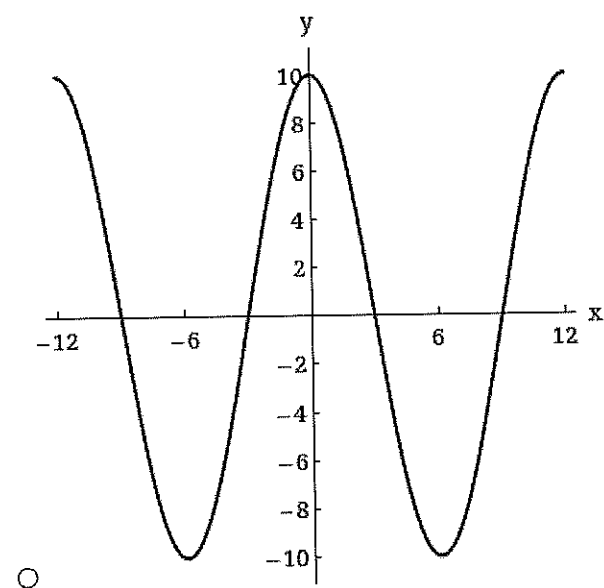
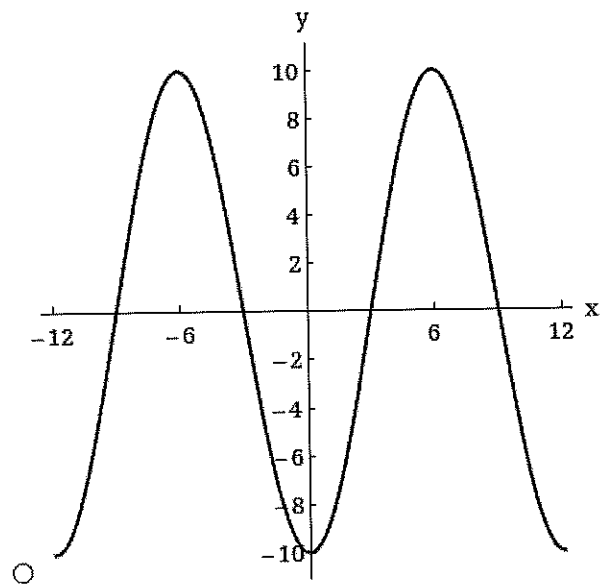
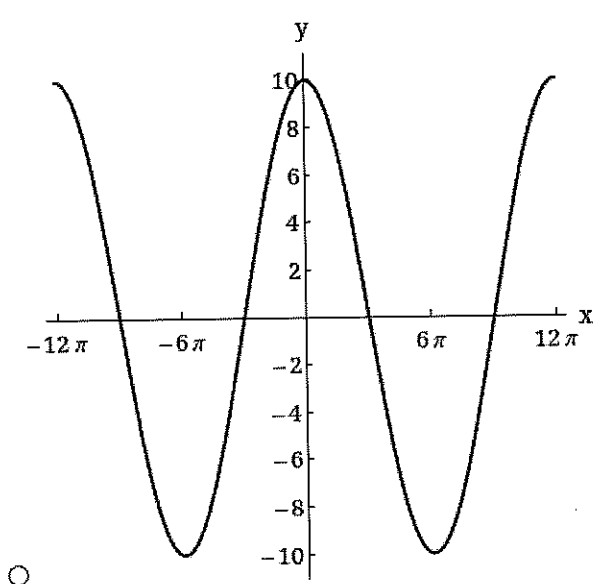
LARPCALC10 4.5.040. 0/15 Submissions Used

MY NOTES

ASK YOUR TEACHER

Sketch the graph of the function. (Include two full periods.)

$$y = 10 \cos\left(\frac{\pi x}{6}\right)$$



Need Help?

Read It

Watch It

10. [-/3.57 Points]

DETAILS

LARPCALC10 4.6.006. 0/15 Submissions Used

MY NOTES

ASK YOUR TEACHER

Fill in the blank.

The domain of $y = \cot x$ is all real numbers such that _____.

☐ $x \geq \pi$

☐ $x \neq \frac{n\pi}{2}$, where n is an odd integer

☐ $x = n\pi$, where n is an integer

☐ $x \geq 0$

☐ $x \neq n\pi$, where n is an integer

Need Help?

Read It

11. [-/3.57 Points]

DETAILS

LARPCALC10 4.6.008. 0/15 Submissions Used

MY NOTES

ASK YOUR TEACHER

Fill in the blank.

The period of $y = \csc x$ is

Need Help?

Read It

12. [-/3.57 Points]

DETAILS

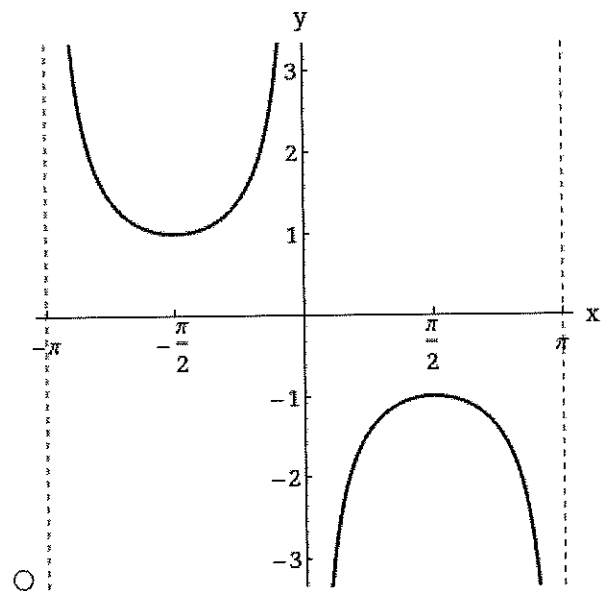
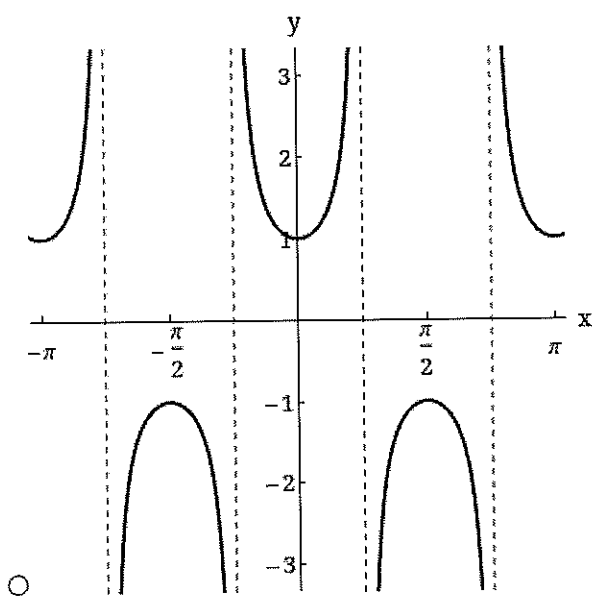
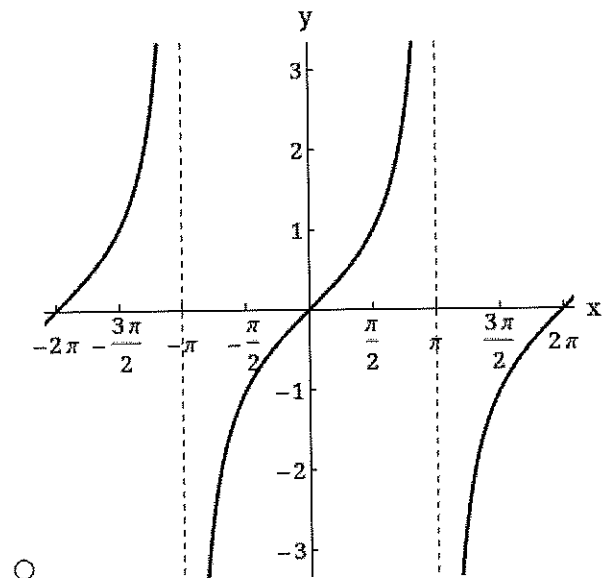
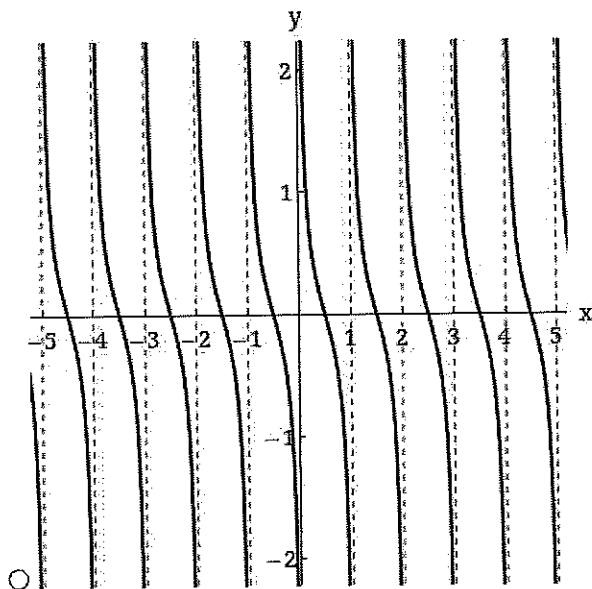
LARPCALC10 4.6.009. 0/15 Submissions Used

MY NOTES

ASK YOUR TEACHER

Match the function with its graph.

$$y = \sec(2x)$$



State the period of the function.

Need Help?

Read It

13. [-/3.57 Points]

DETAILS

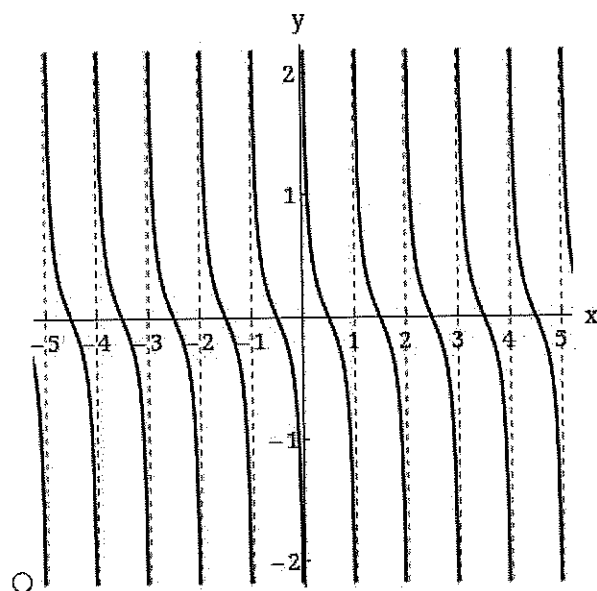
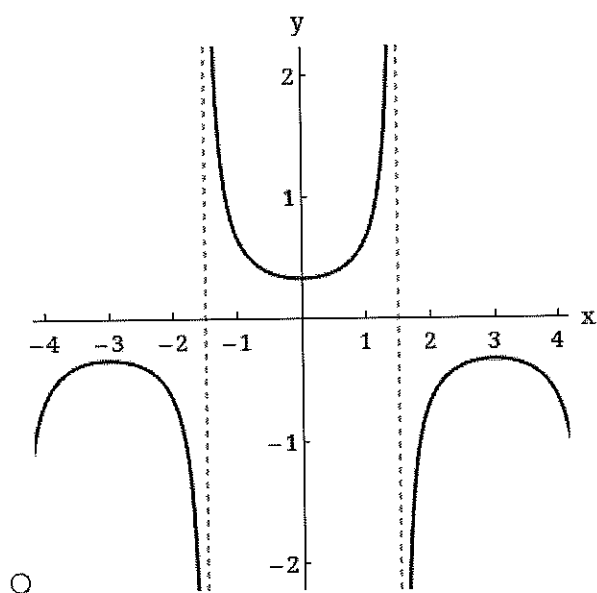
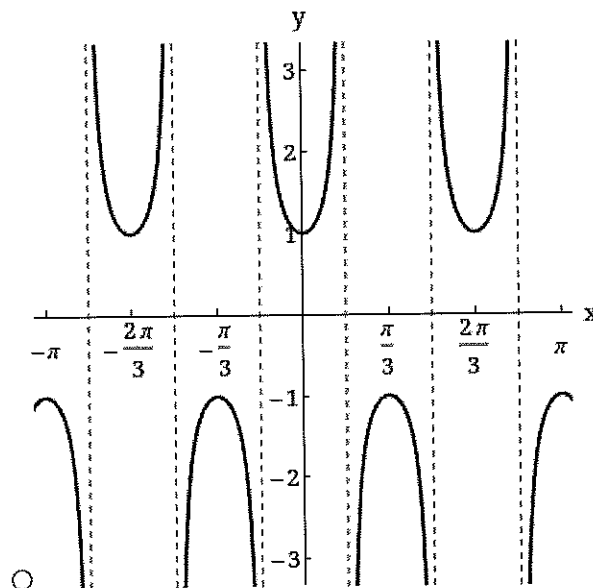
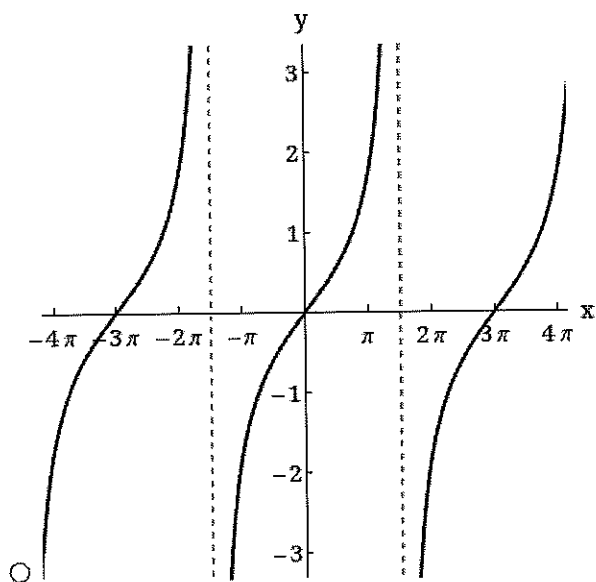
LARPCALC10 4.6.011. 0/15 Submissions Used

MY NOTES

ASK YOUR TEACHER

Match the function with its graph.

$$y = \frac{1}{3} \cot \pi x$$



State the period of the function.

.....

.....

Need Help?

Read It

14. [-/3.57 Points]

DETAILS

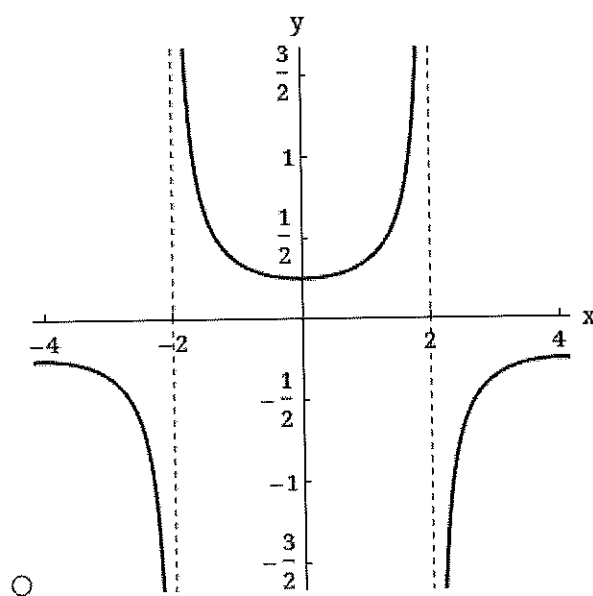
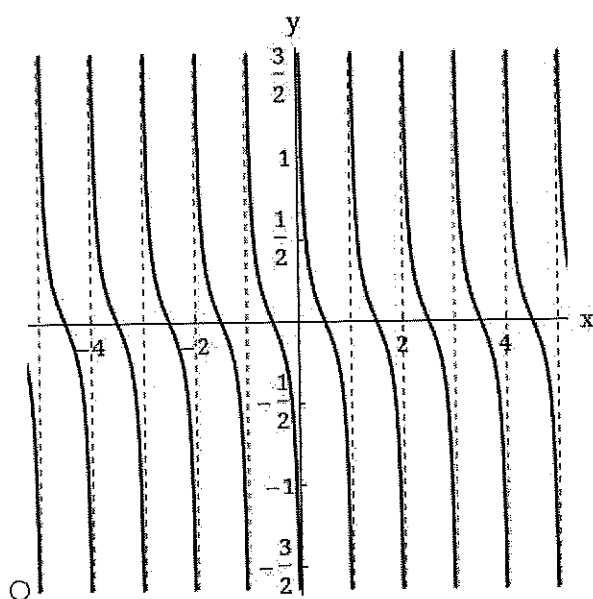
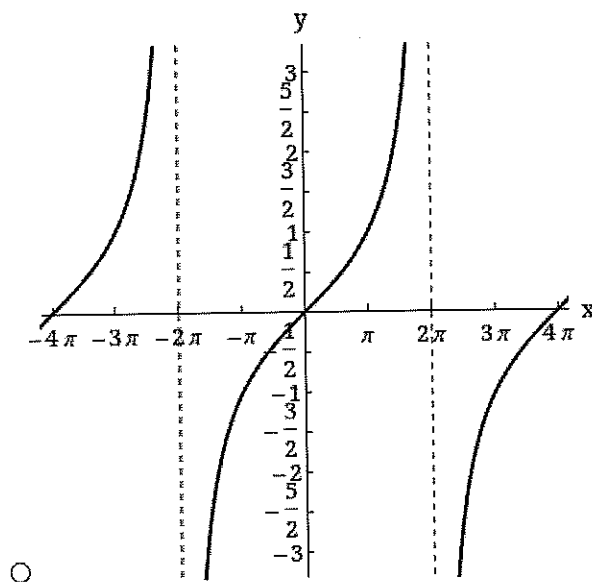
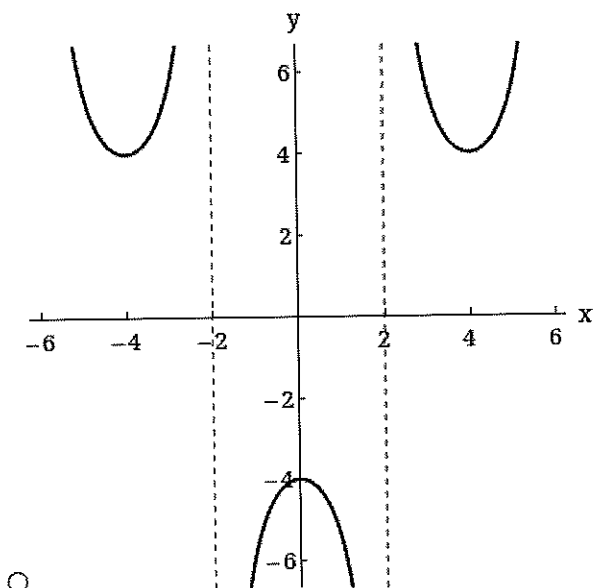
LARPCALC10 4.6.014. 0/15 Submissions Used

MY NOTES

ASK YOUR TEACHER

Match the function with its graph.

$$y = -4 \sec \frac{\pi x}{4}$$



State the period of the function.

Need Help?

Read It

15. [-/3.57 Points]

DETAILS

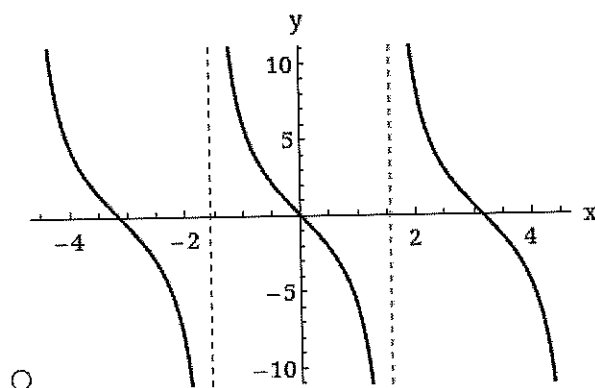
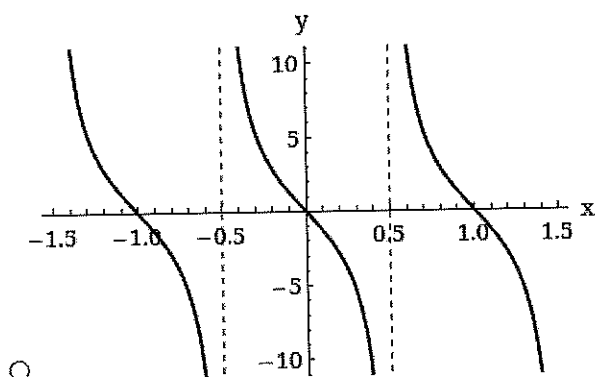
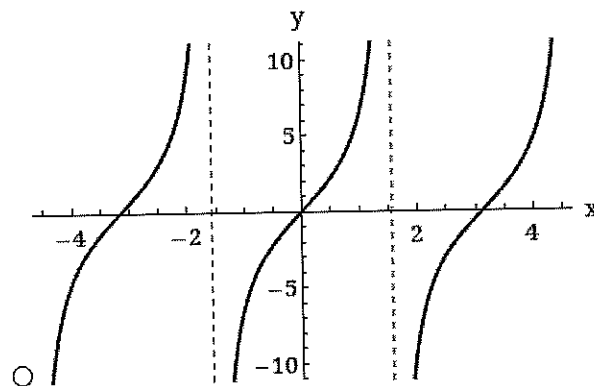
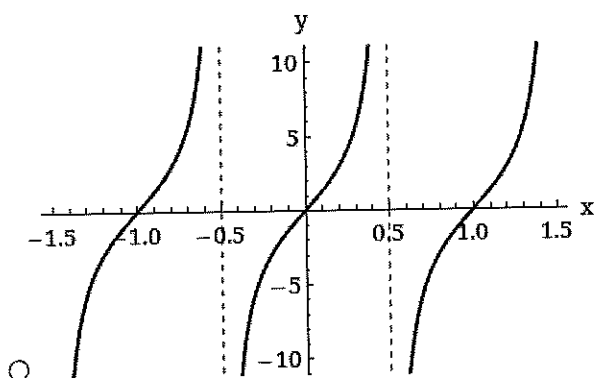
LARPCALC10 4.6.020. 0/15 Submissions Used

MY NOTES

ASK YOUR TEACHER

Sketch the graph of the function. (Include two full periods.)

$$y = -4 \tan(\pi x)$$



Need Help?

Read It

Watch It

16. [-/3.57 Points]

DETAILS

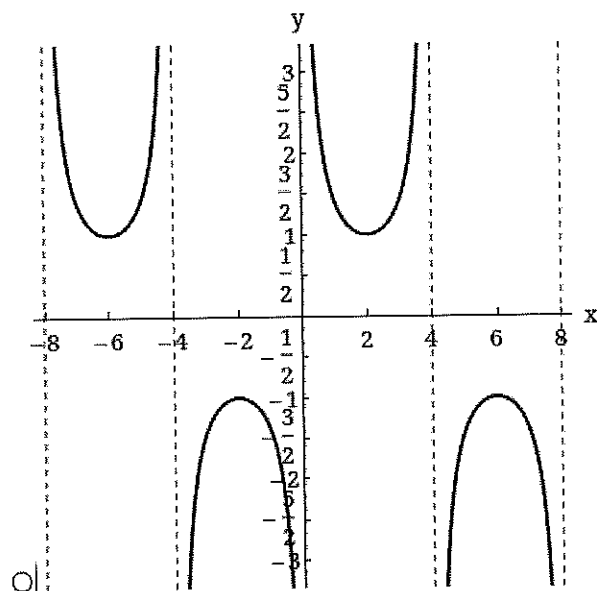
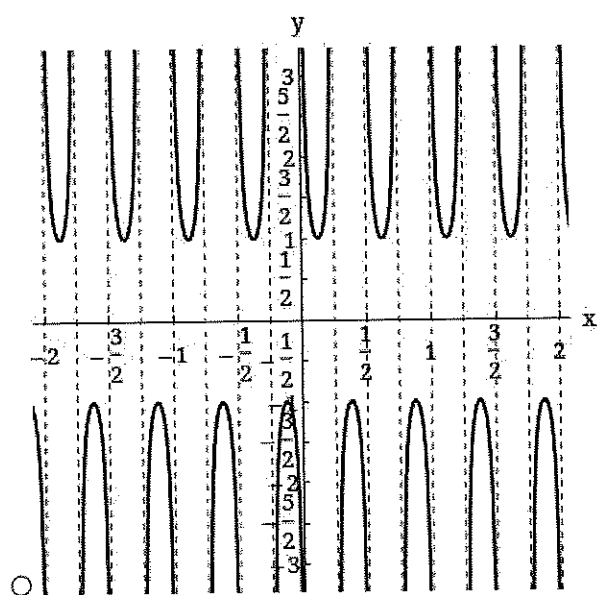
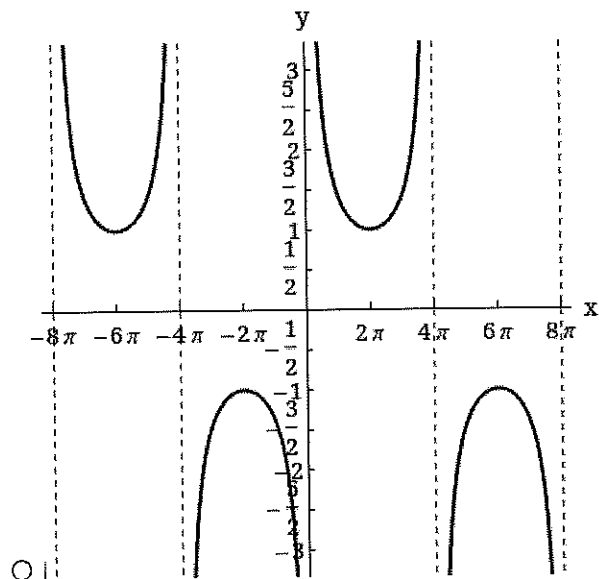
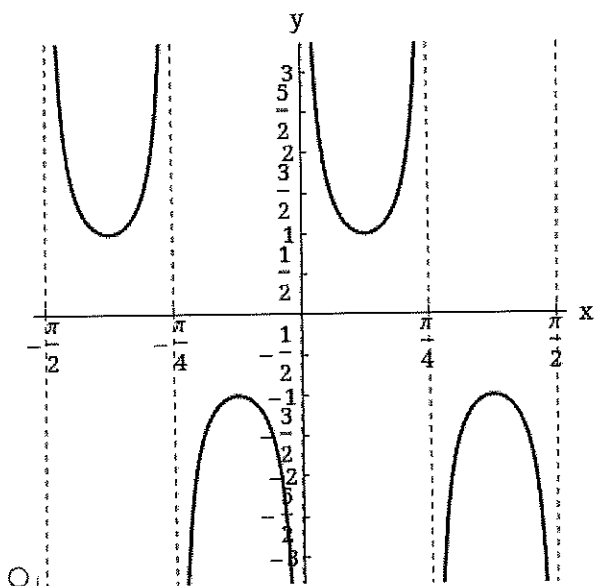
LARPCALC10 4.6.025. 0/15 Submissions Used

MY NOTES

ASK YOUR TEACHER

Sketch the graph of the function. (Include two full periods.)

$$y = \csc \frac{x}{4}$$



Need Help?

[Read It](#)

17. [-/3.57 Points]

DETAILS

LARPCALC10 4.7.001. 0/15 Submissions Used

MY NOTES

ASK YOUR TEACHER

Fill in the blanks. (Enter the domain in interval notation.)

Function

Alternative Notation

Domain

Range

$y = \arcsin x$

$y =$

$-\frac{\pi}{2} \leq y \leq \frac{\pi}{2}$

Need Help?

Read It

18. [-/3.57 Points]

DETAILS

LARPCALC10 4.7.003. 0/15 Submissions Used

MY NOTES

ASK YOUR TEACHER

Fill in the blanks. (Enter the domain and the range in interval notation.)

Function

Alternative Notation

Domain

Range

$y = \arctan x$

$y =$

Need Help?

Read It

19. [-/3.57 Points]

DETAILS

LARPCALC10 4.7.007. 0/15 Submissions Used

MY NOTES

ASK YOUR TEACHER

Find the exact value of the expression, if possible. (If not possible, enter IMPOSSIBLE.)

$\arccos\left(\frac{1}{2}\right)$

Need Help?

Read It

20. [-/3.57 Points]

DETAILS

LARPCALC10 4.7.011. 0/15 Submissions Used

MY NOTES

ASK YOUR TEACHER

Find the exact value of the expression, if possible. (If not possible, enter IMPOSSIBLE.)

$$\arcsin(9)$$

Need Help?

Read It

21. [-/3.57 Points]

DETAILS

LARPCALC10 4.7.018. 0/15 Submissions Used

MY NOTES

ASK YOUR TEACHER

Find the exact value of the expression, if possible. (If not possible, enter IMPOSSIBLE.)

$$\tan^{-1}\left(-\frac{\sqrt{3}}{3}\right)$$

Need Help?

Read It

Watch It

22. [-/3.57 Points]

DETAILS

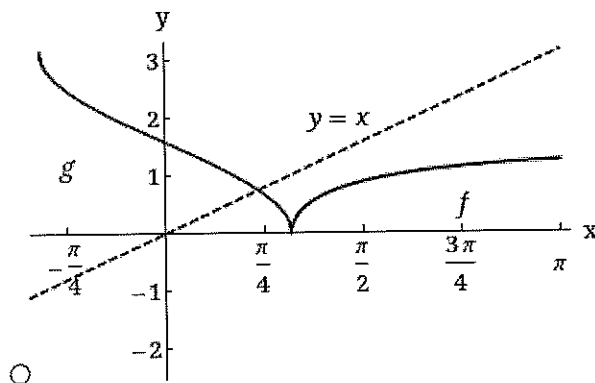
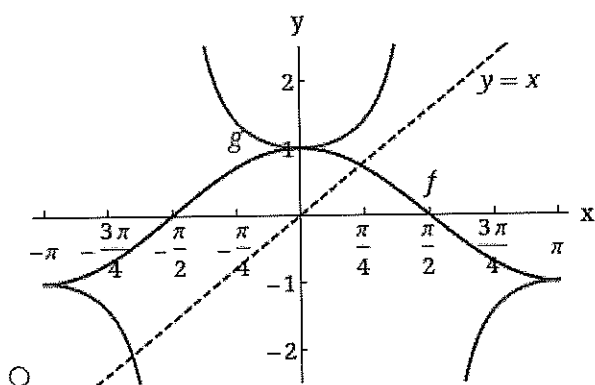
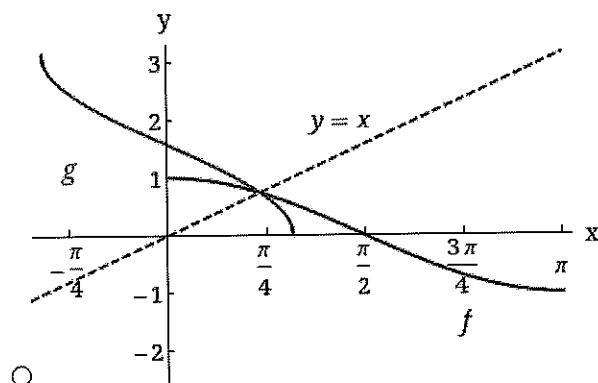
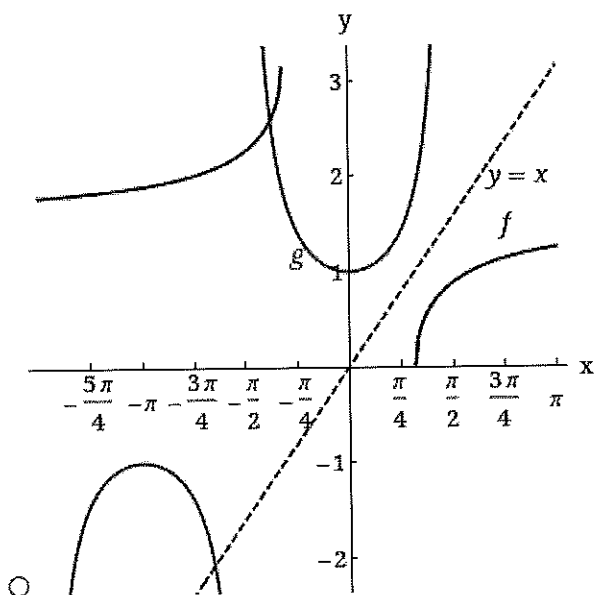
LARPCALC10 4.7.019. 0/15 Submissions Used

MY NOTES

ASK YOUR TEACHER

Use a graphing utility to graph f , g , and $y = x$ in the same viewing window. (Be sure to restrict the domain of f properly.)

$$f(x) = \cos x, \quad g(x) = \arccos x$$



Is g the inverse function of f ?

☐ Yes

☐ No

Need Help?

Read It

23. [-/3.57 Points]

DETAILS

LARPCALC10 4.7.023. 0/15 Submissions Used

MY NOTES

ASK YOUR TEACHER

Use a calculator to approximate the value of the expression, if possible. Round your result to two decimal places. (Enter your answer in radians. If not possible, enter IMPOSSIBLE.)

$\arcsin(-0.63)$

Need Help?

Read It

24. [-/3.57 Points]

DETAILS

LARPCALC10 4.7.037. 0/15 Submissions Used

MY NOTES

ASK YOUR TEACHER

Determine the missing coordinates of the points on the graph of the function.

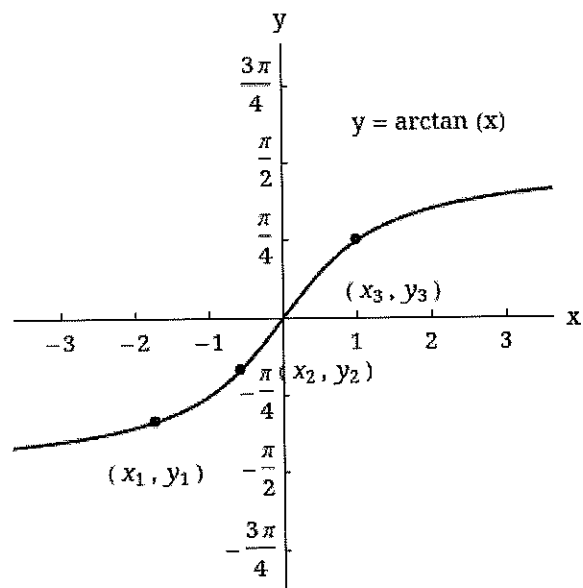
 $(-\sqrt{3},$ $(x_1, y_1) =$

)

(

 $(x_2, y_2) =$ $, -\frac{\pi}{6})$

(

 $(x_3, y_3) =$ $, \frac{\pi}{4})$ 

Need Help?

Read It

25. [-/3.57 Points]

DETAILS

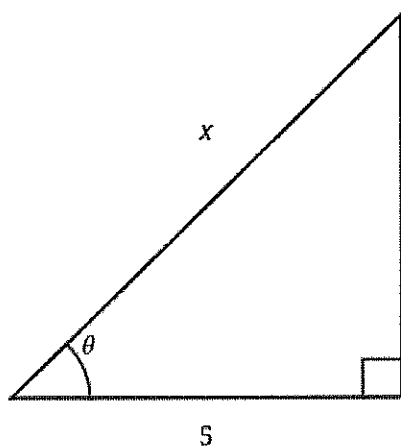
LARPCALC10 4.7.040. 0/15 Submissions Used

MY NOTES

ASK YOUR TEACHER

Use an inverse trigonometric function to write θ as a function of x .

$\theta =$



Need Help?

Read It

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26. [-/3.57 Points]

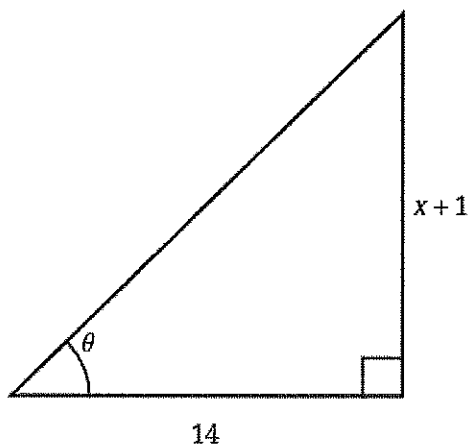
DETAILS

LARPCALC10 4.7.042. 0/15 Submissions Used

MY NOTES

ASK YOUR TEACHER

Use an inverse trigonometric function to write θ as a function of x .

 $\theta =$ 

Need Help?

Read It

Watch It

27. [-/3.57 Points]

DETAILS

LARPCALC10 4.7.047. 0/15 Submissions Used

MY NOTES

ASK YOUR TEACHER

Find the exact value of the expression, if possible. (If not possible, enter IMPOSSIBLE.)

$$\cos[\arccos(-\sqrt{3})]$$

Need Help?

Read It

28. [-/3.61 Points]

DETAILS

LARPCALC10 4.7.048. 0/15 Submissions Used

MY NOTES

ASK YOUR TEACHER

Find the exact value of the expression, if possible. (If not possible, enter IMPOSSIBLE.)

$$\sin[\arcsin(-0.1)]$$

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