View hints View feedback Play All

QUESTION 1

Drag and drop the correct answer into the space(s) provided.

The range of

$y = \sec\ x$

and

$y = \csc\ x$

is $(-\infty, -1] \cup [1, \infty)$.

$(-1, \infty)$ $(-\infty, \infty)$ $(-\infty, 0) \cup (1, \infty)$

QUESTION 2

Drag and drop the correct answer into the space(s) provided.

Locate the vertical asymptote and choose the graph of the cotangent function

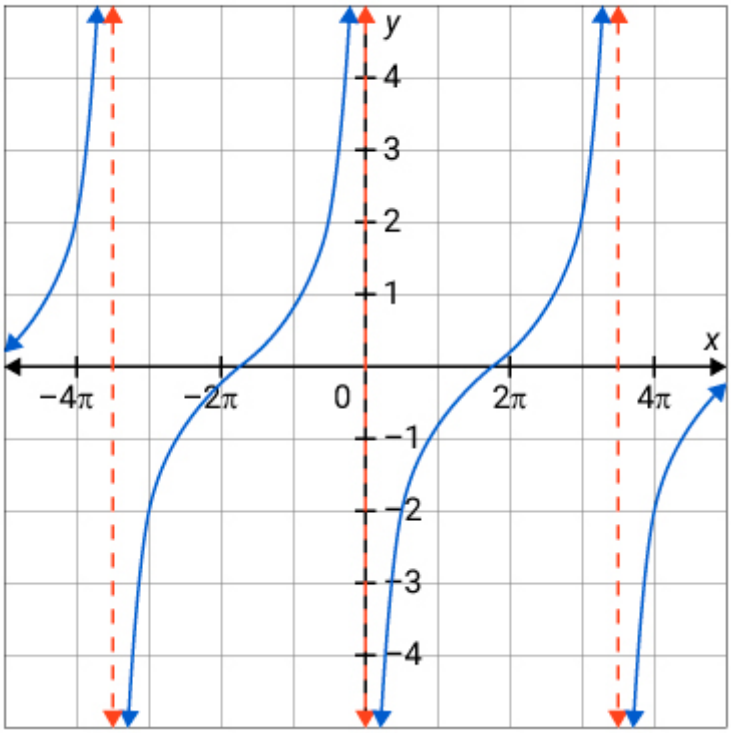
$y = \cot\ \frac{2}{7} x$

.

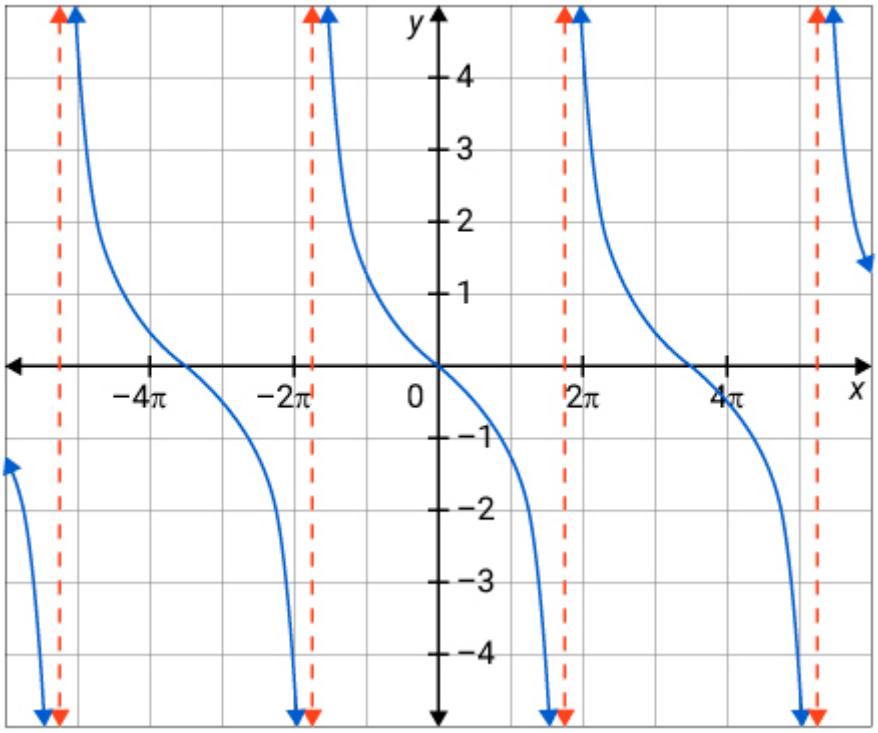
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Graph A

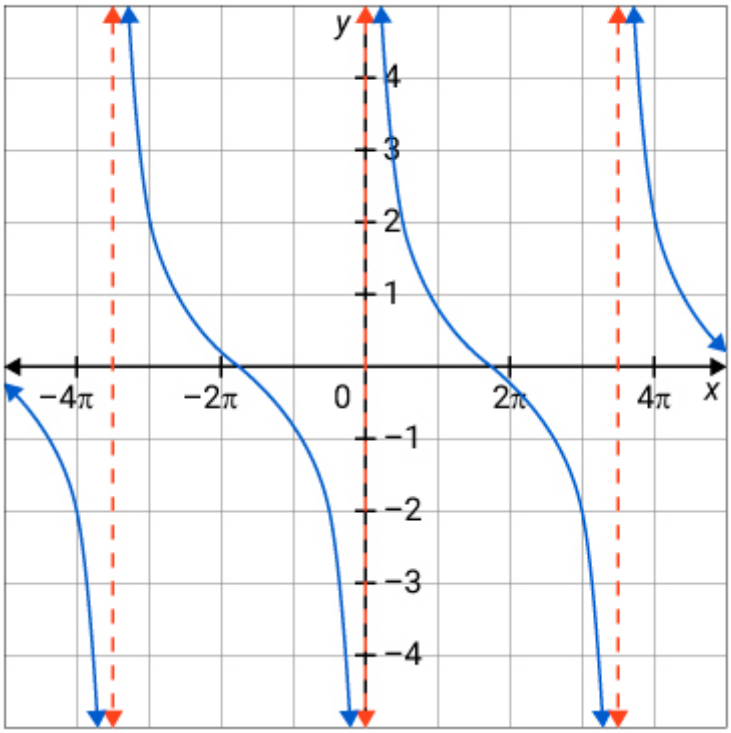


Graph B

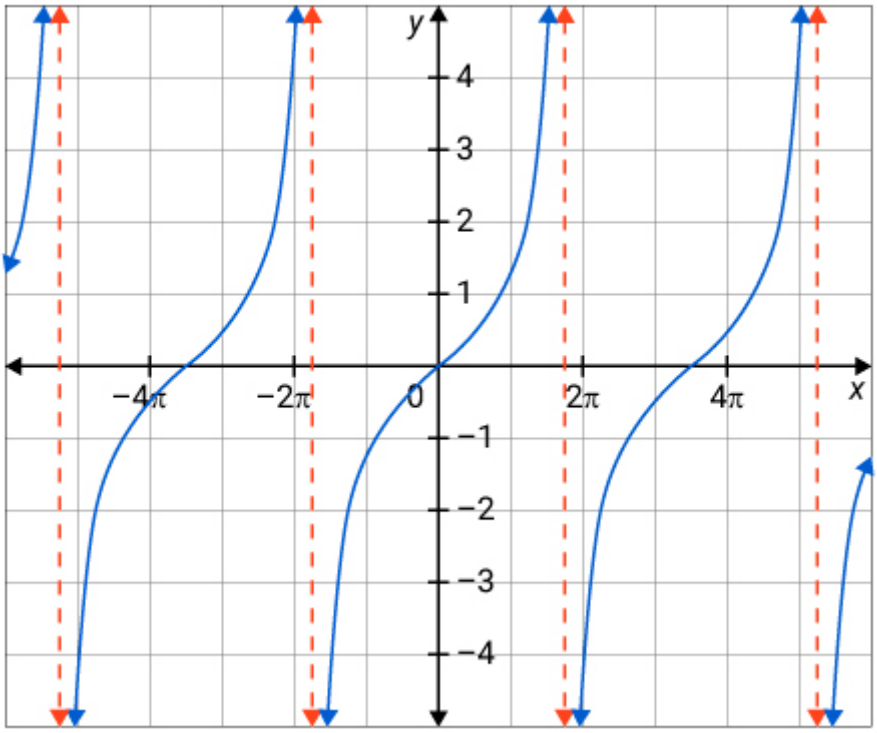


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Graph C



Graph D



The graph for

$$y = \cot \frac{2}{7} x$$

is Graph C ✓.

Graph B | Graph D | Graph A

QUESTION 3

Drag and drop the correct answer into the space(s) provided.

Look at the vertical asymptotes and choose the graph of

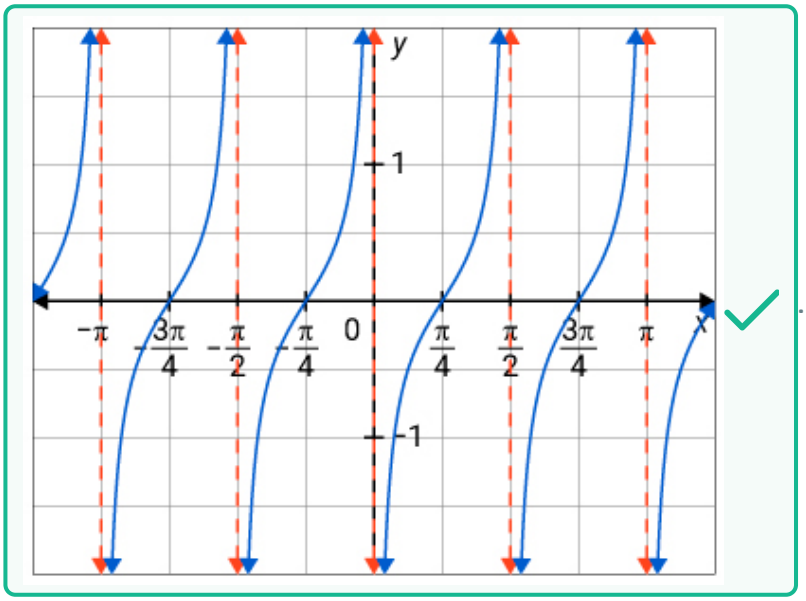
$$y = -\frac{1}{2}\cot 2x$$

.

The graph of

$$y = -\frac{1}{2}\cot 2x$$

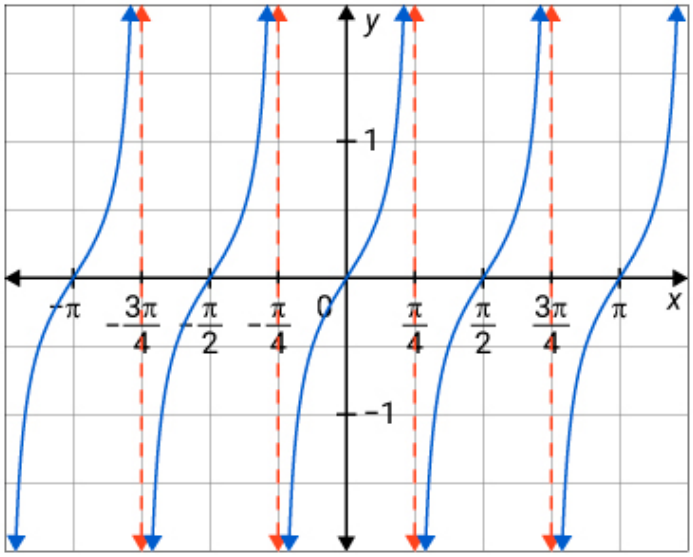
is

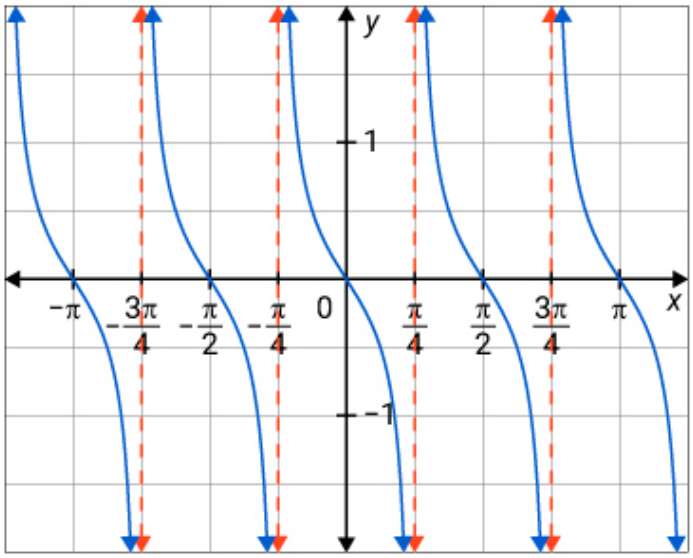


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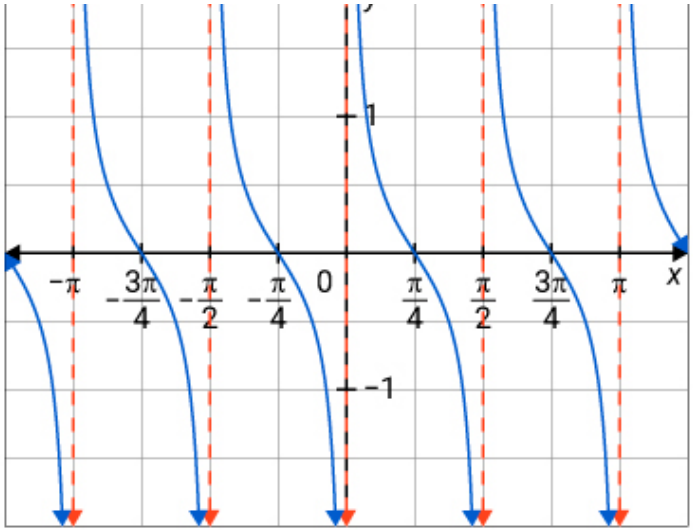
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QUESTION 4

Drag and drop the correct answer into the space(s) provided.

Use the graph of

$y = \cot x$

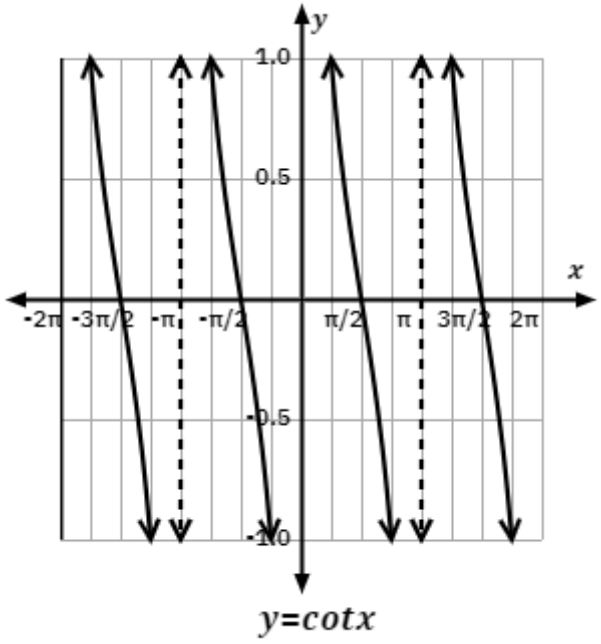
to locate the vertical asymptotes and choose the graph of

$y = -3\cot\left(x + \frac{3\pi}{4}\right)$

.

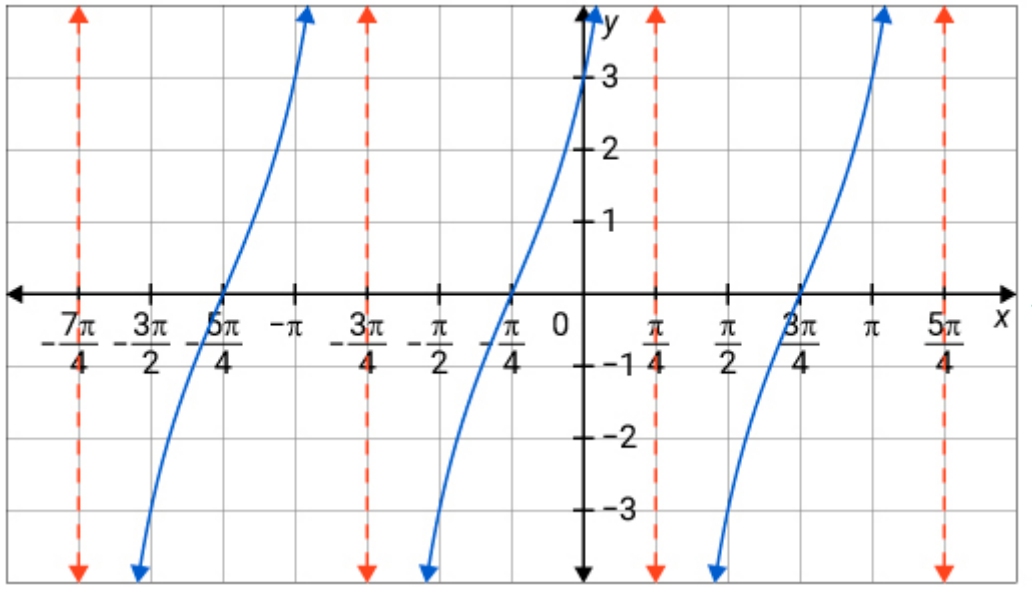
The graph of

$y = -3\cot\left(x + \frac{3\pi}{4}\right)$

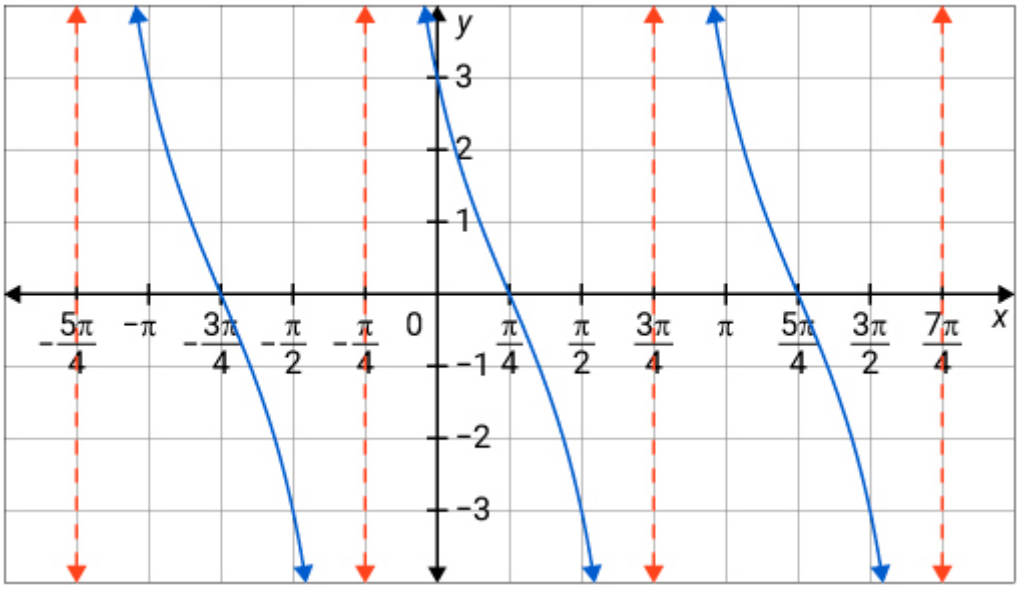


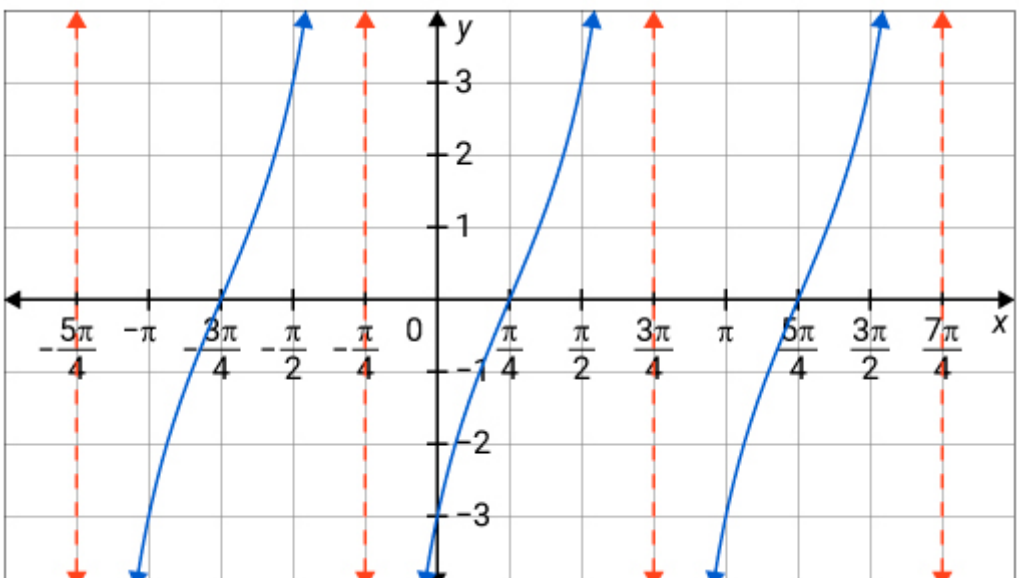
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is

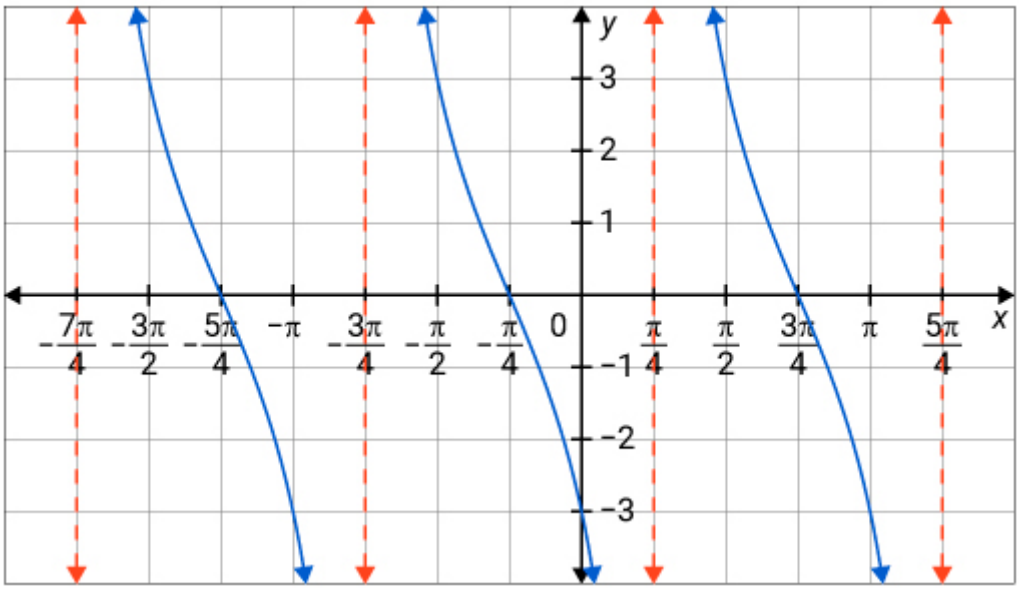


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QUESTION 5

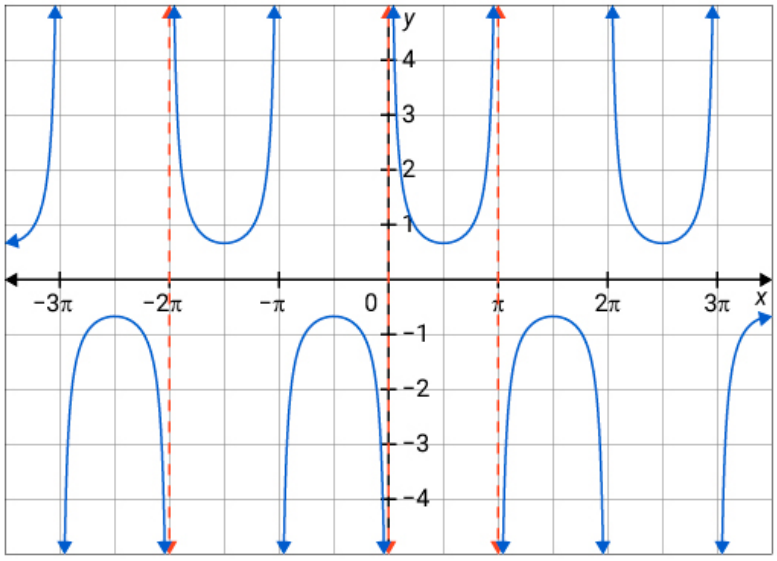
Drag and drop the correct answer into the space(s) provided.

Locate the vertical asymptotes and choose the graph of the function

$$y = \frac{2}{3}\sec\left(x - \frac{\pi}{2}\right)$$

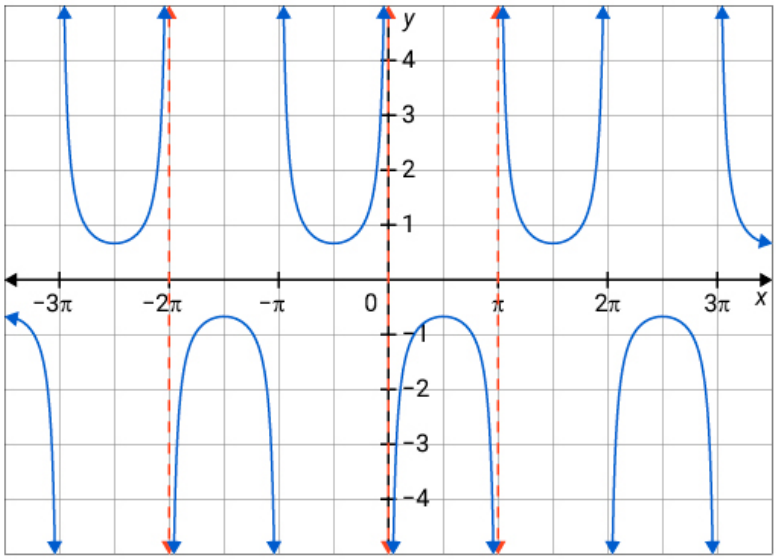
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Graph A

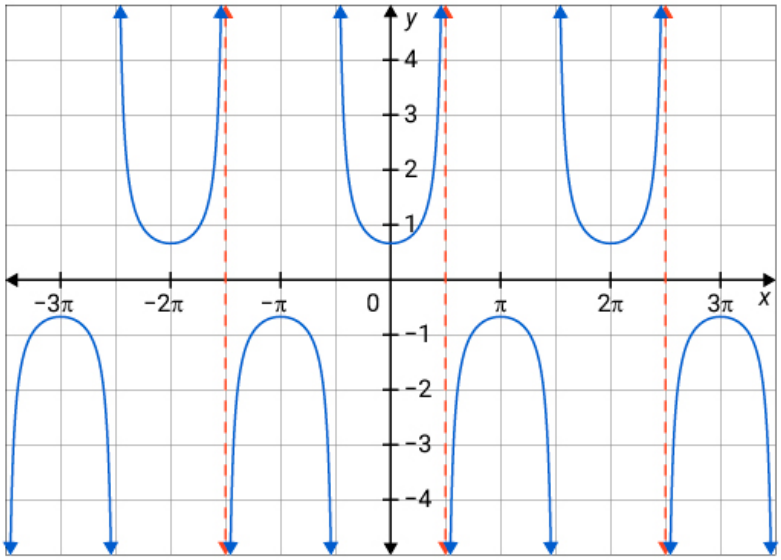


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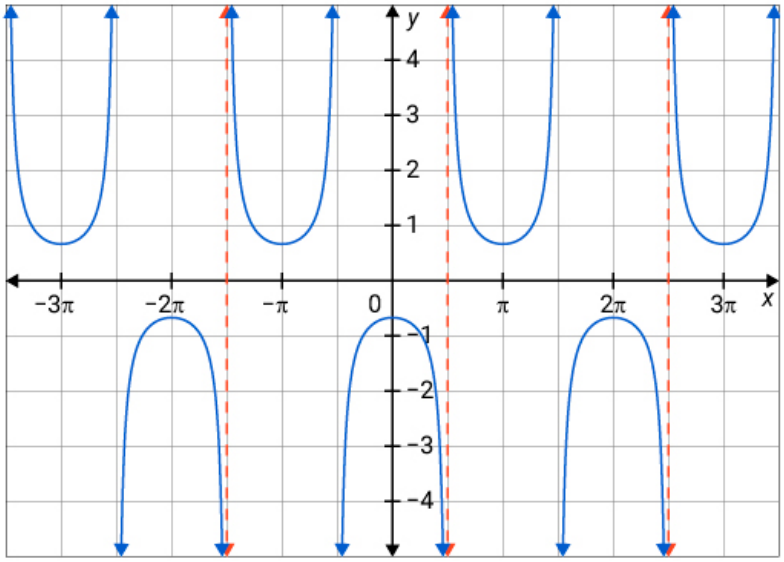
Graph B



Graph C



Graph D



The graph of the function

$$y = \frac{2}{3}\sec\left(x - \frac{\pi}{2}\right)$$

is Graph A .

Graph C | Graph D | Graph B

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QUESTION 6

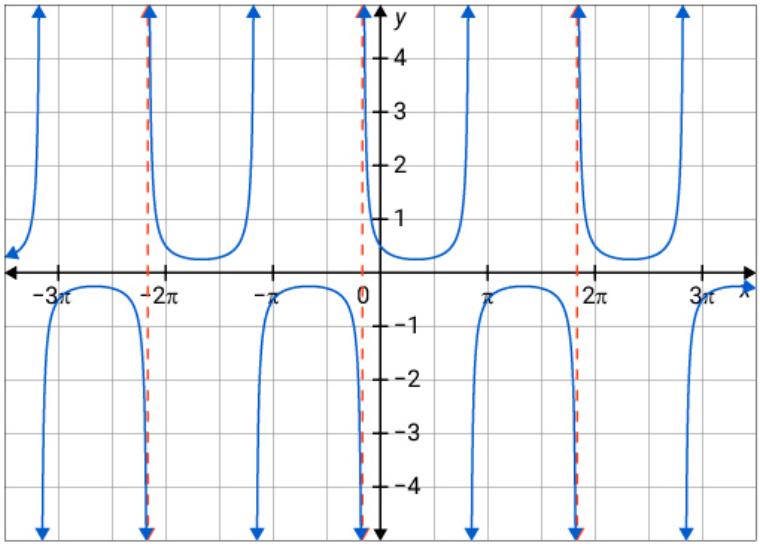
Drag and drop the correct answer into the space(s) provided.

Locate the vertical asymptotes and choose the graph of the function

$$y = \frac{1}{4}\csc\left(x - \frac{\pi}{3}\right)$$

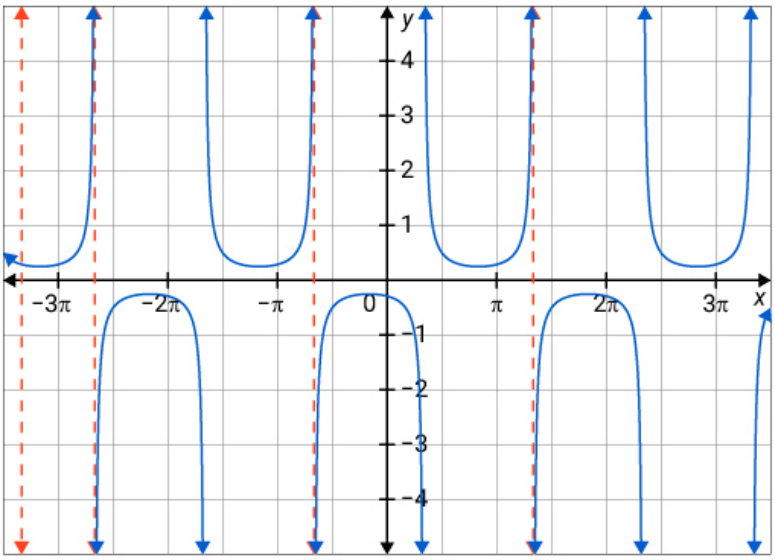
.

Graph A

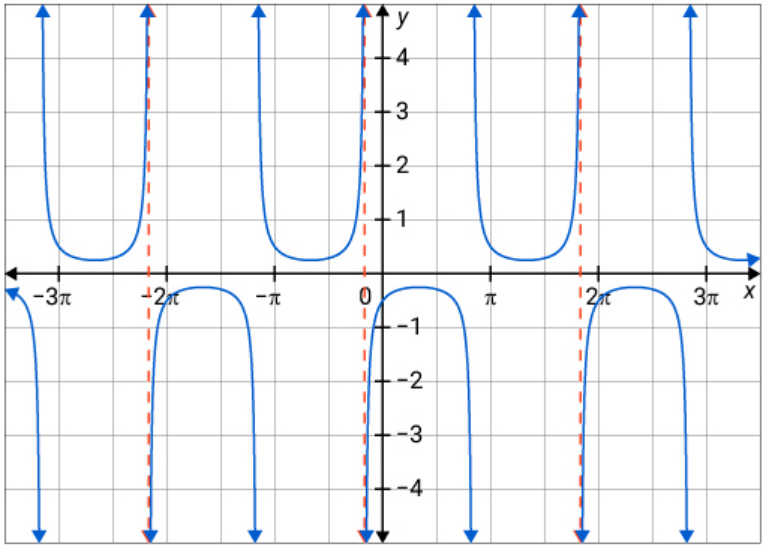


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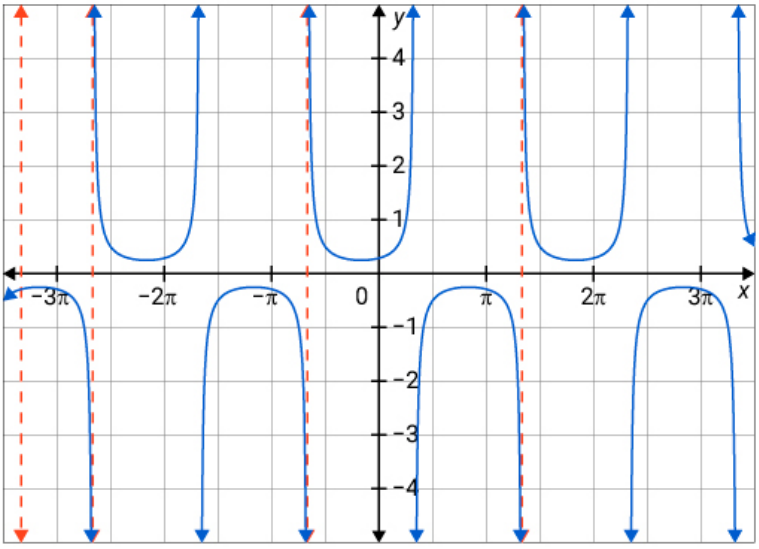
Graph B



Graph C



Graph D



The graph of the function

$y = \frac{1}{4} \csc\left(x - \frac{\pi}{3}\right)$

is Graph B ✓.

Graph A | Graph C | Graph D

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QUESTION 7

Fill in the blank(s) with the correct answer.

Between what two asymptotes is

$x = -\frac{3\pi}{2}$

for the function

$y = \csc x$

?

The next asymptote to the left of

$x = -\frac{3\pi}{2}$

is

$x =$

-2π ✓.

The next asymptote to the right of

$x = -\frac{3\pi}{2}$

is

$x =$

$-\pi$ ✓

QUESTION 8

Choose the correct answer from the drop-down menu.

What is a relative maximum for the function

$y = \csc x$

?

A relative maximum for the function

$y = \csc x$

is $\left(-\frac{\pi}{2}, -1\right)$ ✓ .

QUESTION 9

Select the correct option.

Which statement is true?

- $y = \csc x$ has a y-intercept of 0.
- ◉ $y = \sec x$ has a y-intercept of 1. ✓
- Vertical asymptotes occur at

https://t.me/+CbbW8n6Up6U5OGE8

$x = n\frac{\pi}{2},\ n \in \mathbb{Z}$

for

$y = \csc\ x$

.

The period of

$y = \cot\ x$

is

2π

.

QUESTION 10

Select the correct option

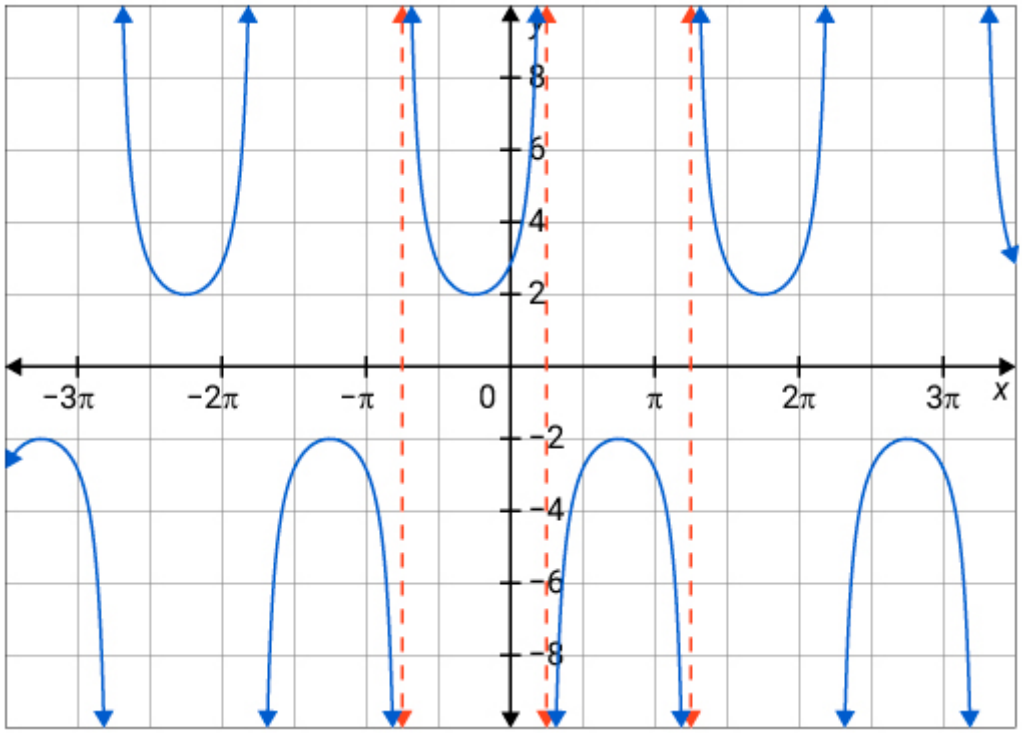
Locate the vertical asymptotes and choose the graph of

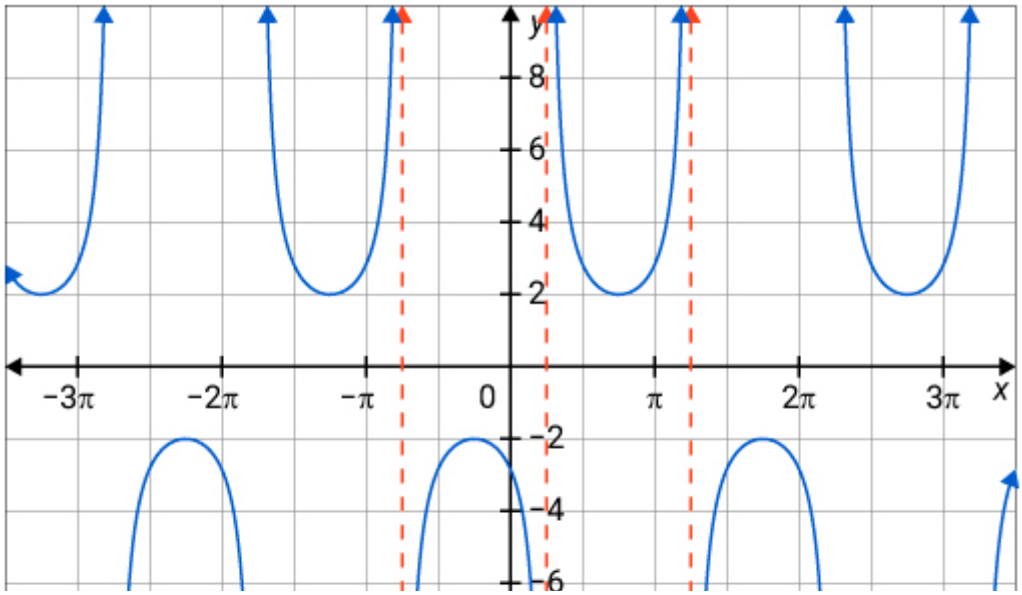
$y = 2\sec\left(x + \frac{\pi}{4}\right)$

.

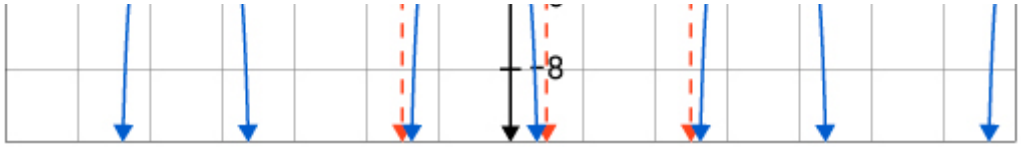
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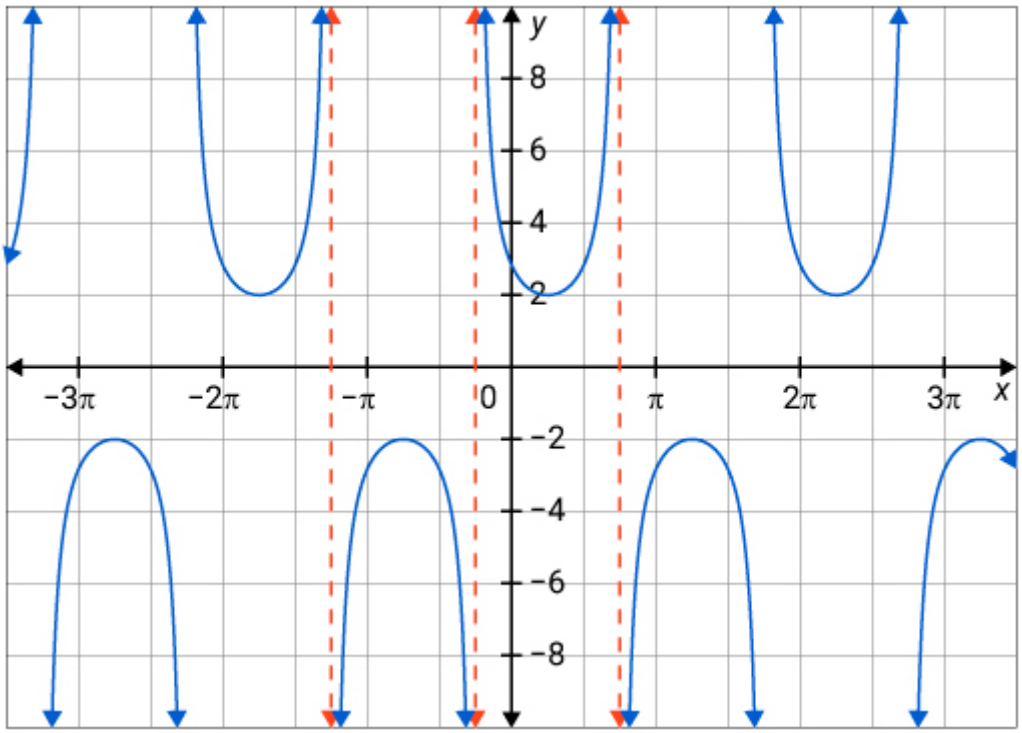
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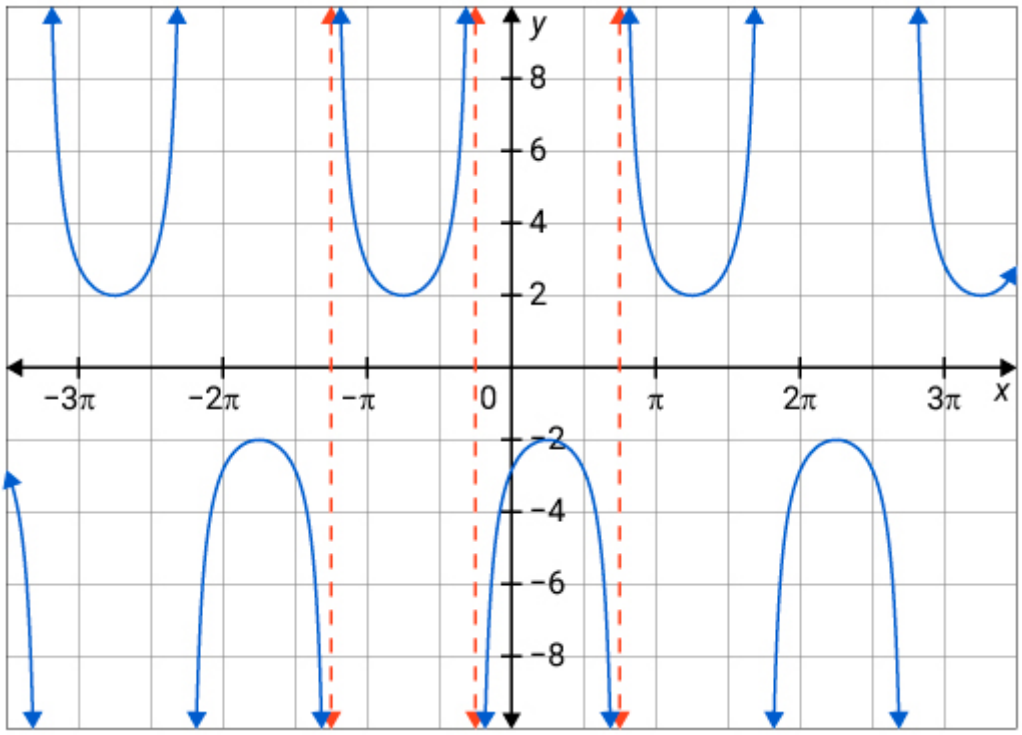


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QUESTION 11

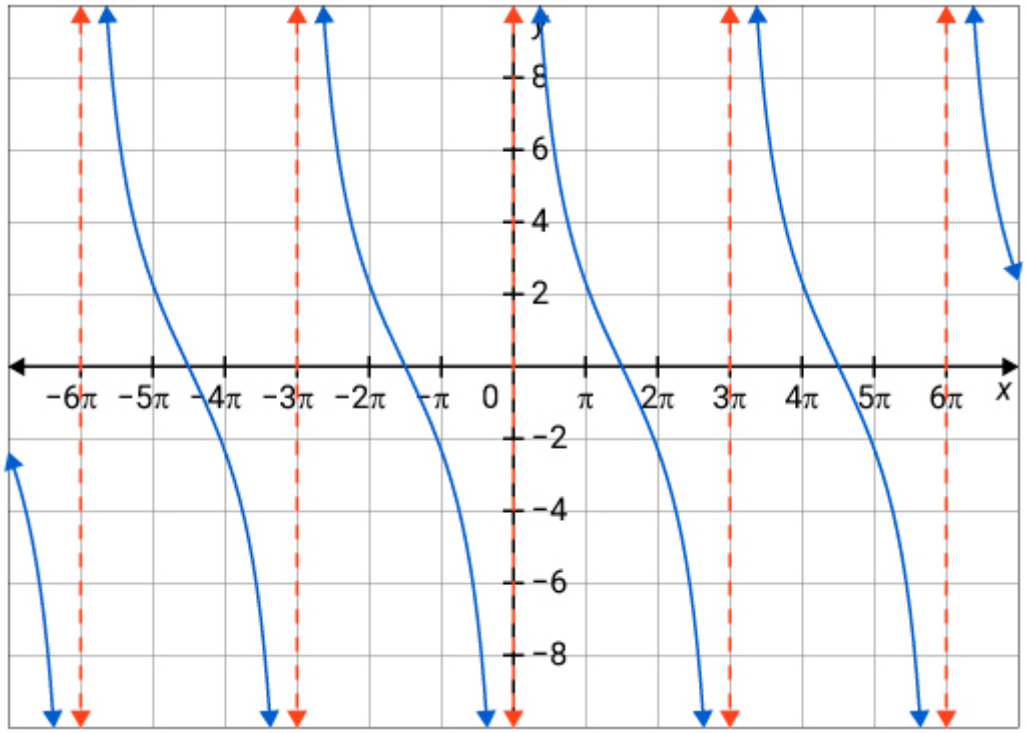
Select the correct option

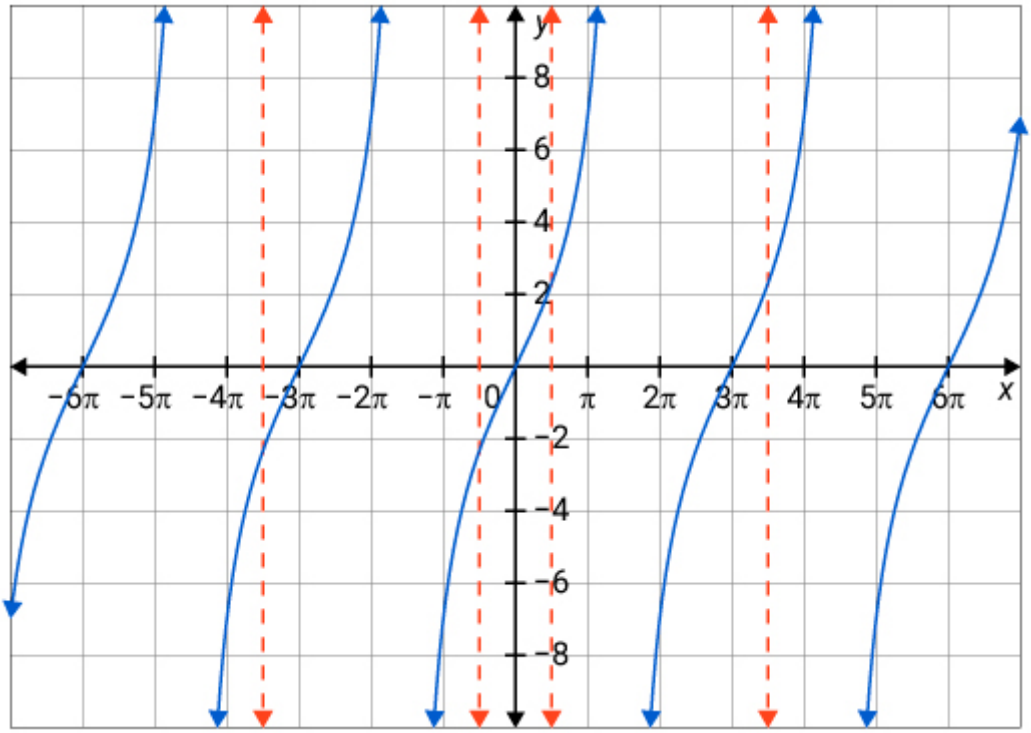
Locate the vertical asymptotes and choose the graph of

$$y = -4\cot\frac{1}{3}x$$

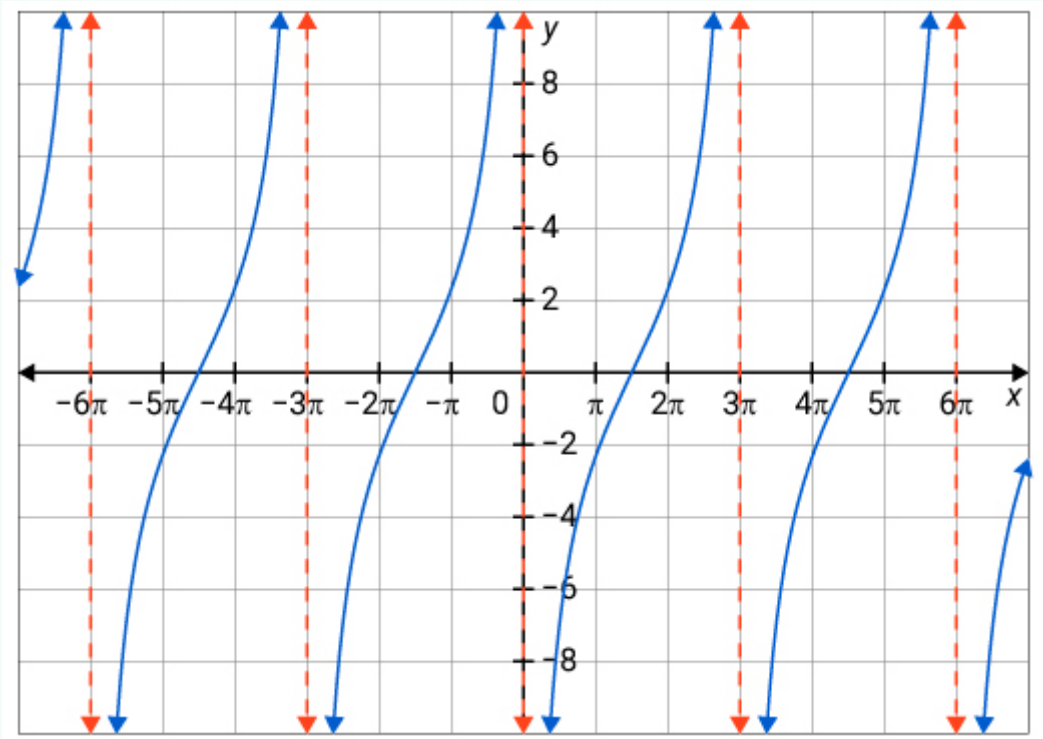
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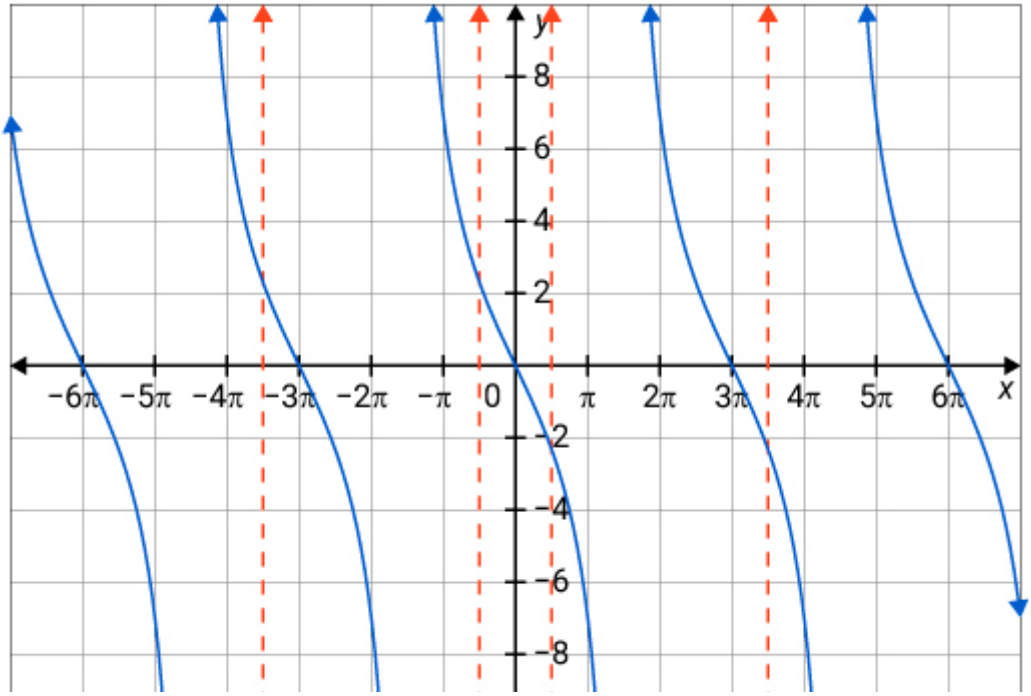
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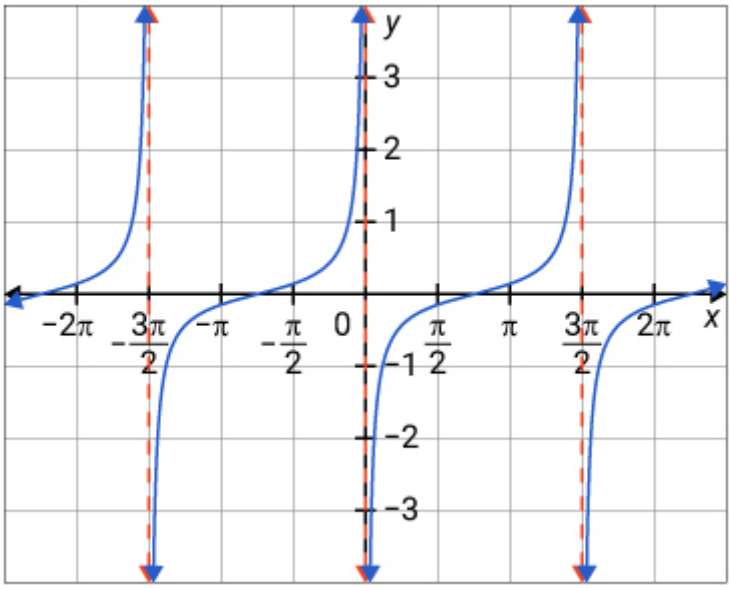
QUESTION 12

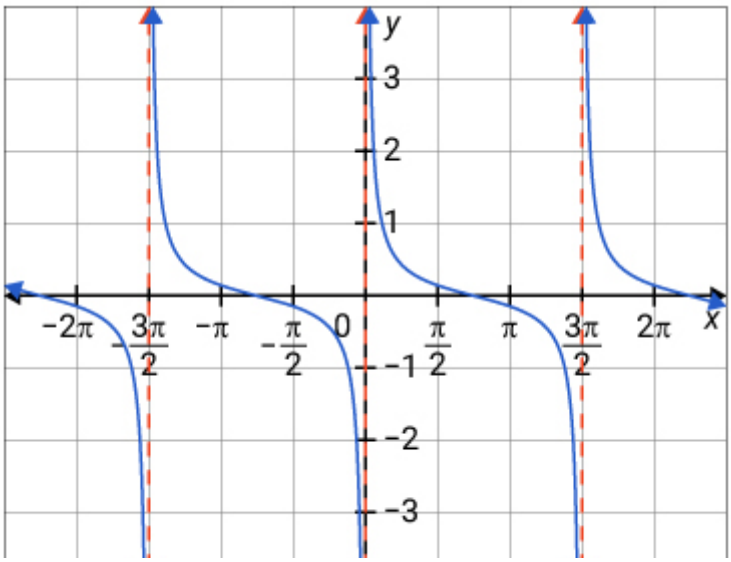
Select the correct option

Locate the vertical asymptotes and choose the graph of

$$y = \frac{1}{4}\cot\left(\frac{2}{3}x\right)$$

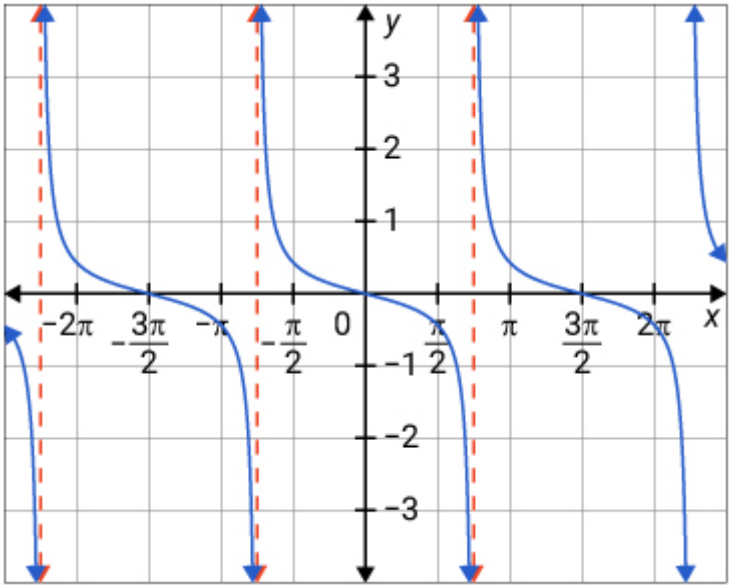
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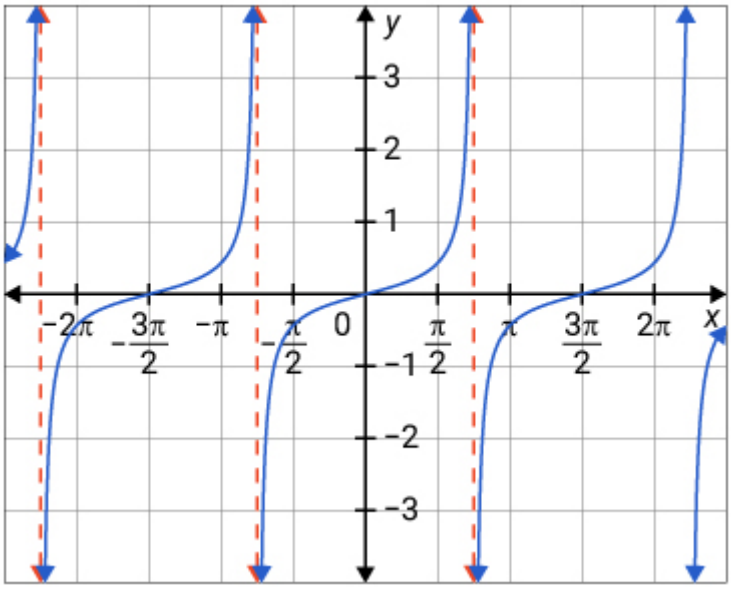




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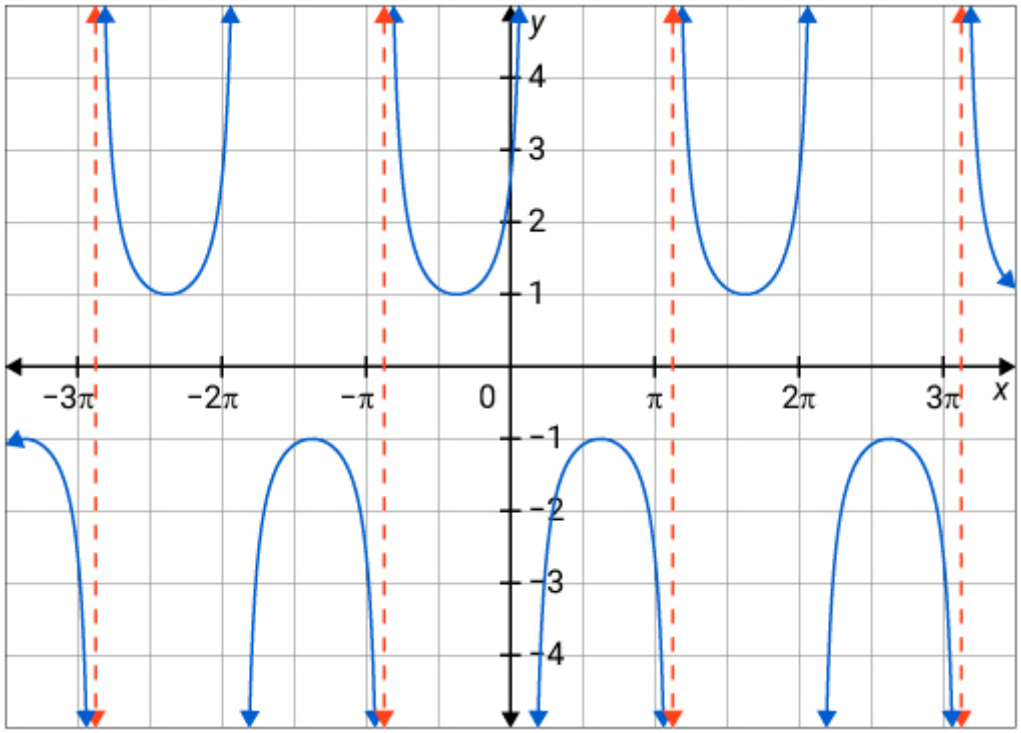
QUESTION 13

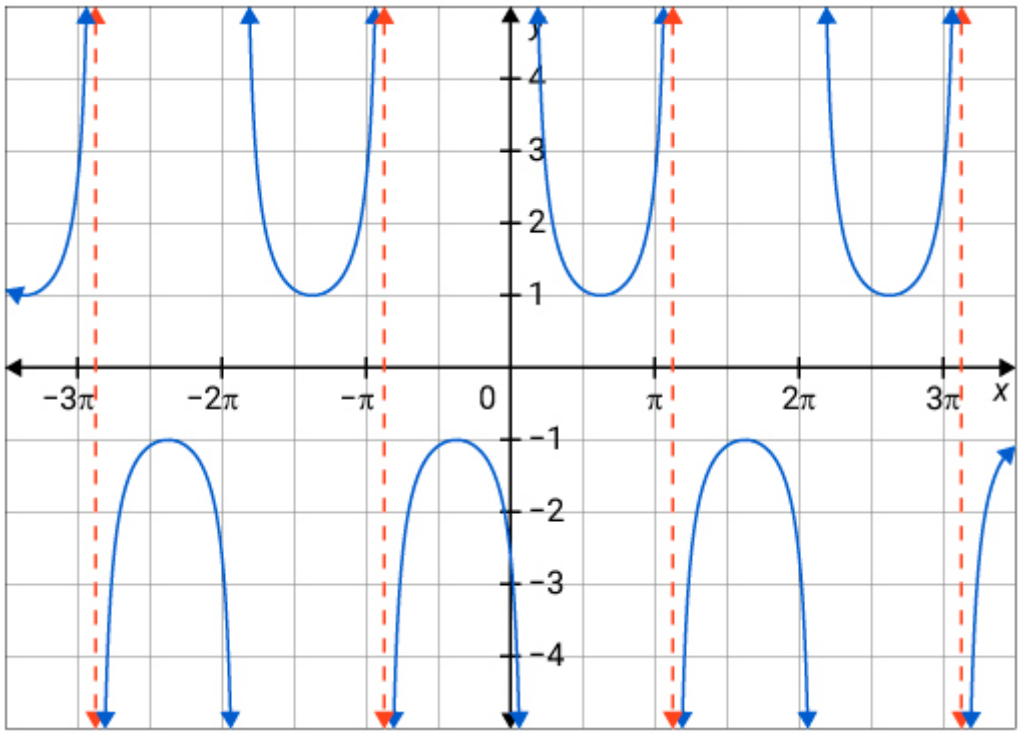
Select the correct option

Locate the vertical asymptotes and choose the graph of

$$y = -\csc\left(x + \frac{3\pi}{8}\right)$$

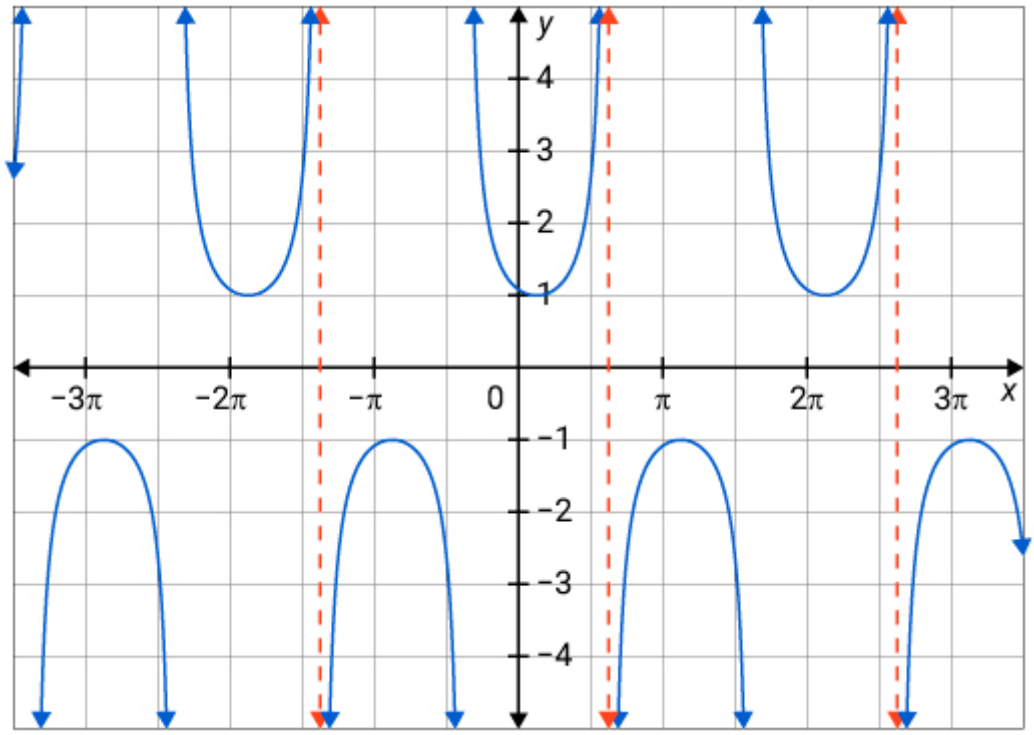
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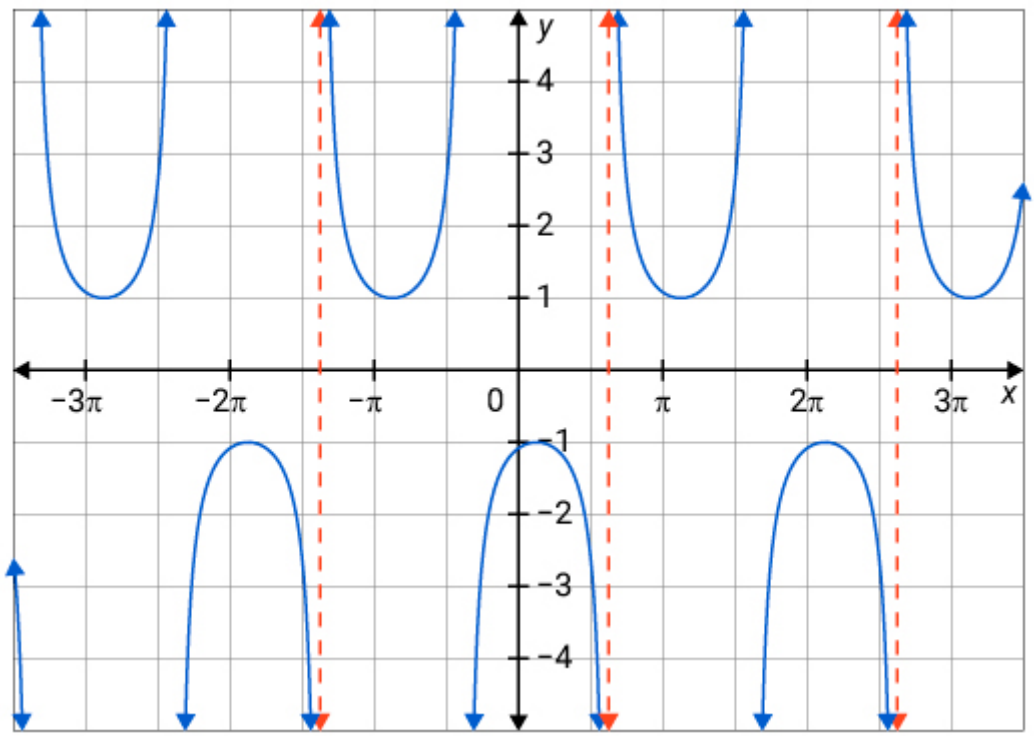




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QUESTION 14

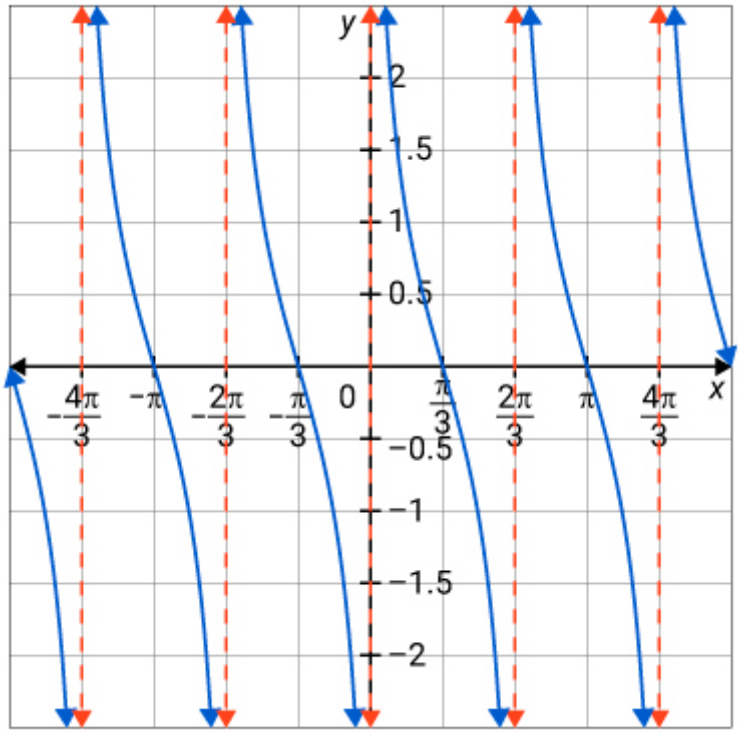
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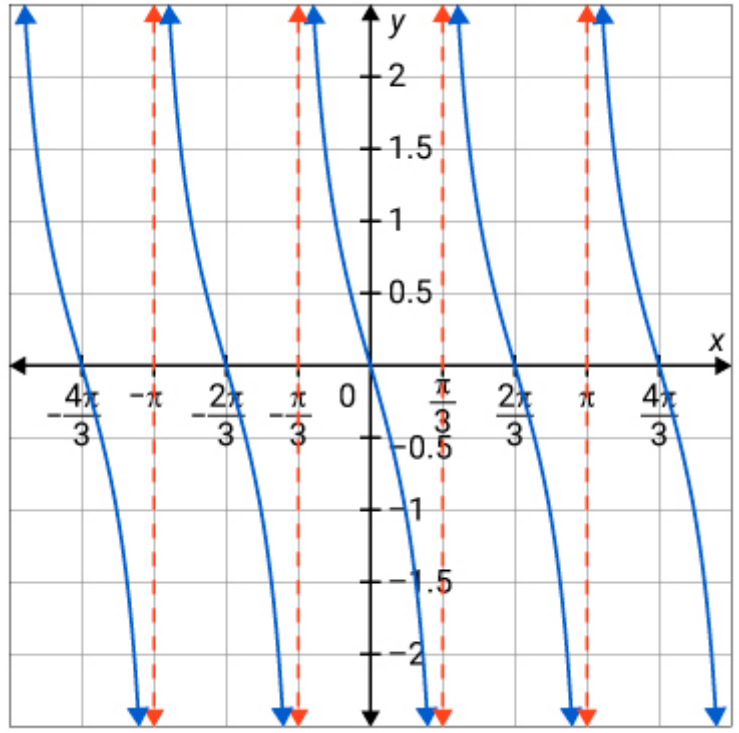
Select the correct option

Locate the vertical asymptotes and choose the graph of the cotangent function

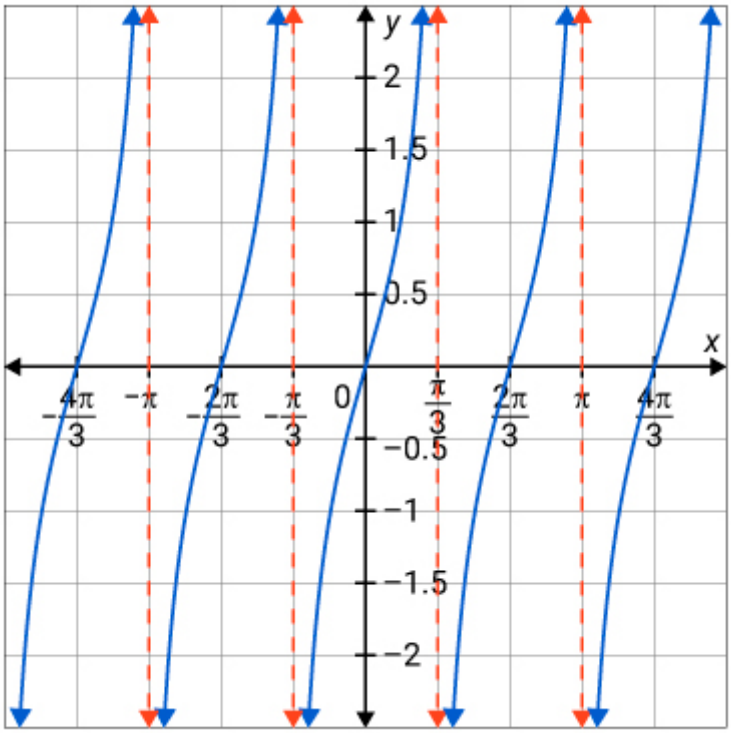
$$y = -\cot\frac{3}{2}x$$

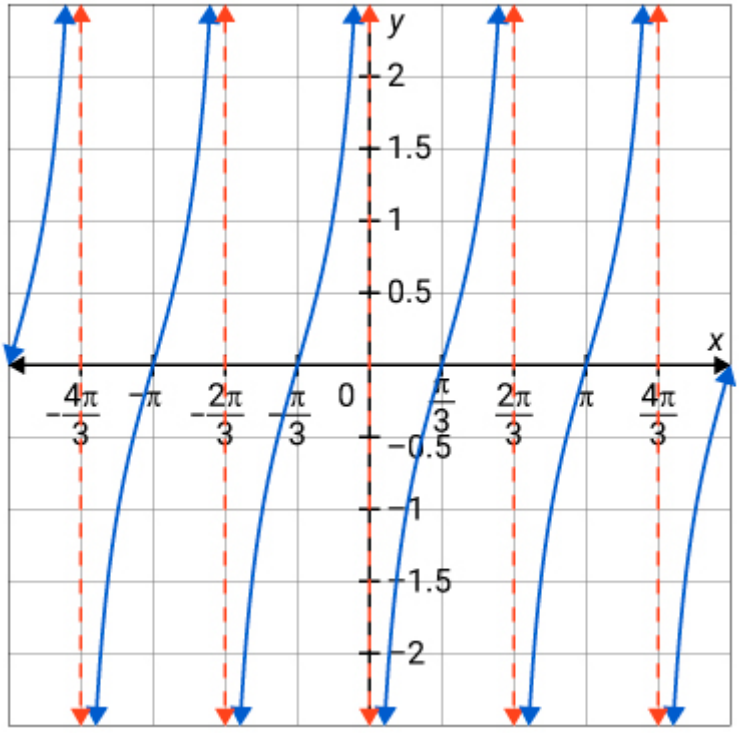
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QUESTION 15

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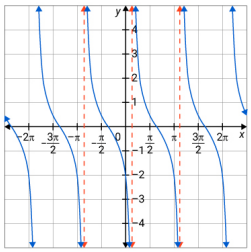
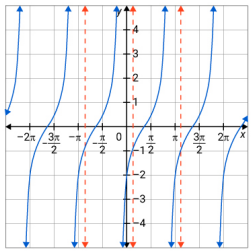
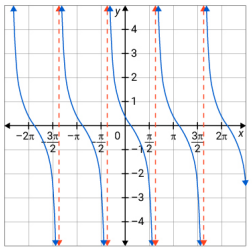
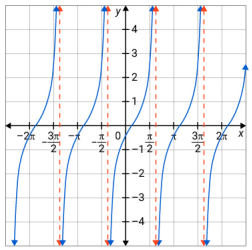
Drag and drop the correct answer into the space(s) provided.

Locate the vertical asymptotes and choose the graph of the tangent function

$$y = -\tan\left(x + \frac{3\pi}{8}\right)$$

.

Graph A | Graph B | Graph C | Graph D

The correct graph for

$$y = -\tan\left(x + \frac{3\pi}{8}\right)$$

is Graph A ✓ .

Graph B | Graph D | Graph C

QUESTION 16

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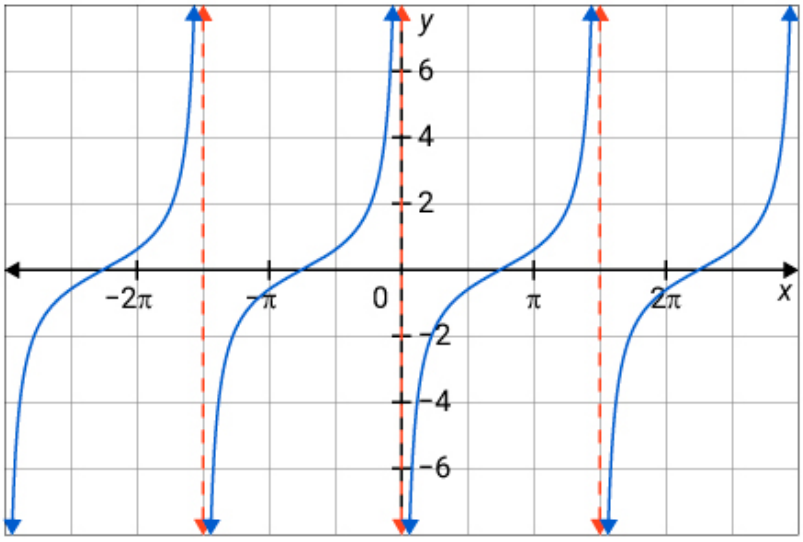
Drag and drop the correct answer into the space(s) provided.

Locate the vertical asymptotes and choose the graph of the tangent function

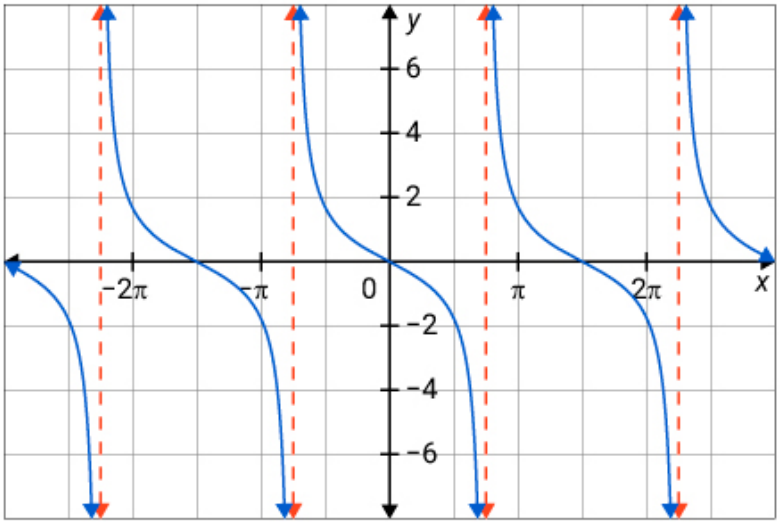
$$y = \tan\left(\frac{2}{3}x\right)$$

.

Graph A

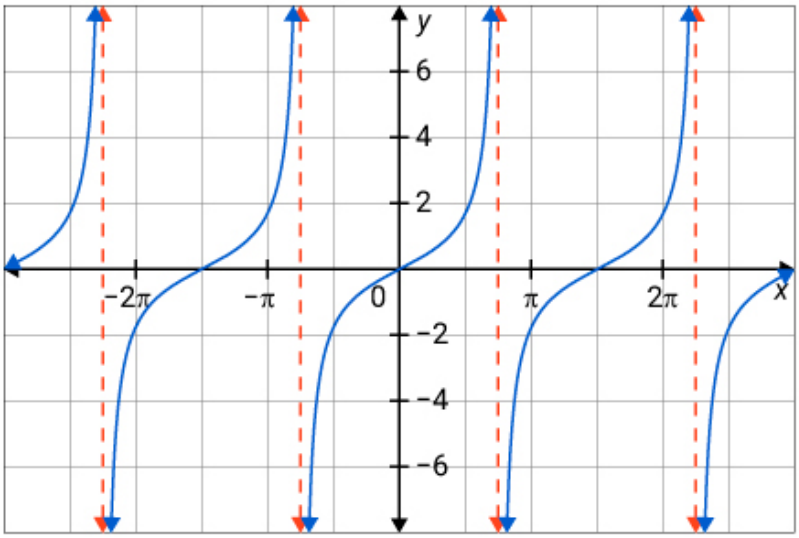


Graph B

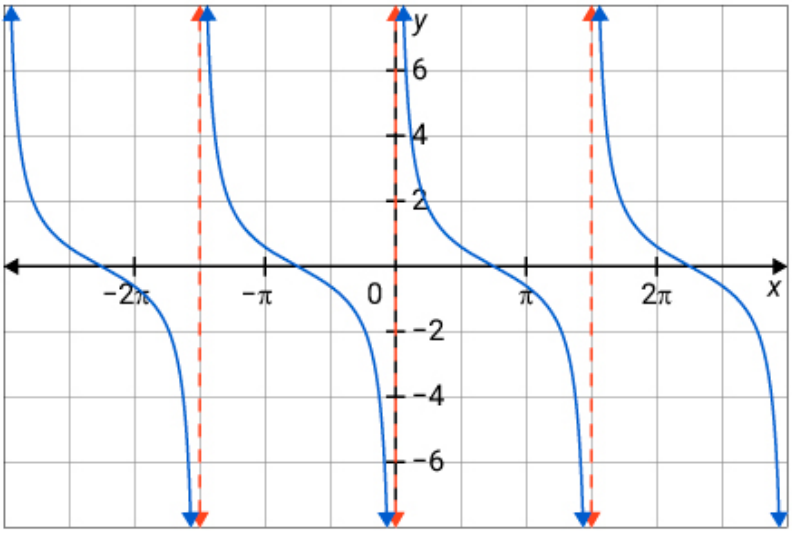


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Graph C



Graph D



Locate the vertical asymptotes and choose the graph of the tangent function

$$y = \tan\left(\frac{2}{3}x\right)$$

.

The graph for

$$y = \tan\left(\frac{2}{3}x\right)$$

is Graph C ✓.

Graph A | Graph B | Graph D

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QUESTION 17

Drag and drop the correct answer into the space(s) provided.

Two consecutive vertical asymptotes of the tangent function

$$y = \tan\left(x - \frac{\pi}{2}\right)$$

are $x = 0$ and $x = \pi$ ✓

$x = -\frac{\pi}{2}$ and $x = \frac{\pi}{2}$

$x = -\pi$ and $x = \pi$

$x = 0$ and $x = \frac{\pi}{2}$

QUESTION 18

Drag and drop the correct answer into the space(s) provided.

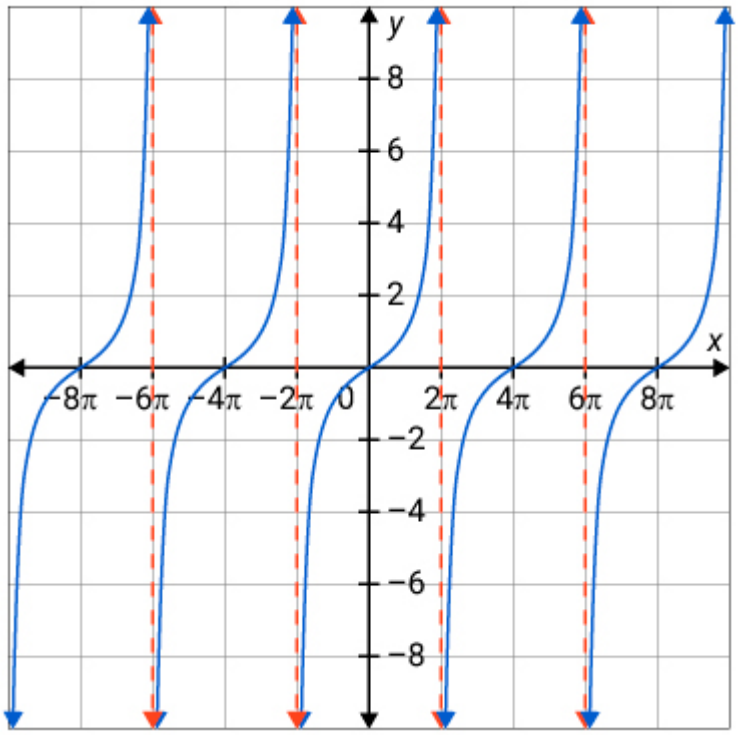
Locate the vertical asymptotes and choose the graph of the tangent function

$$y = \tan\left(\frac{1}{4}x\right)$$

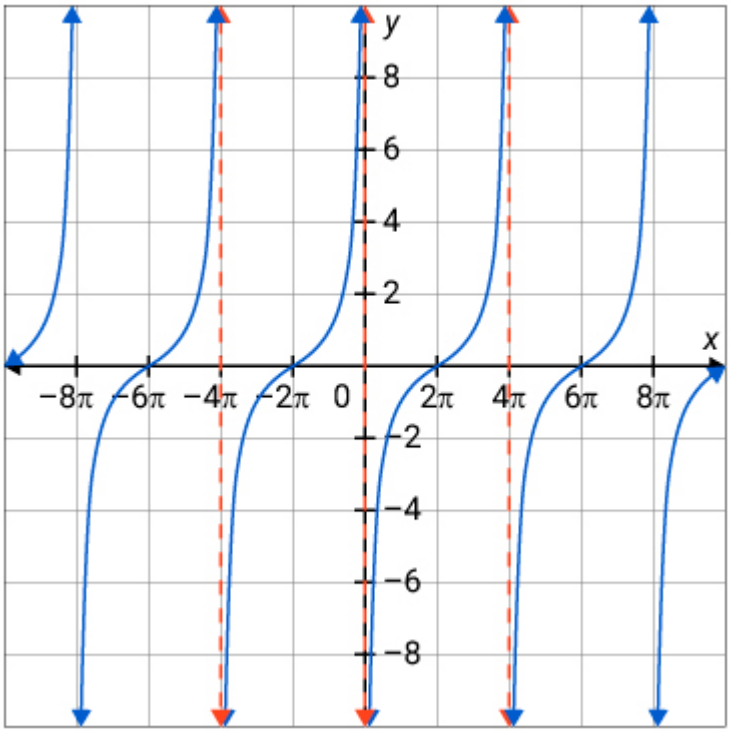
.

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Graph A

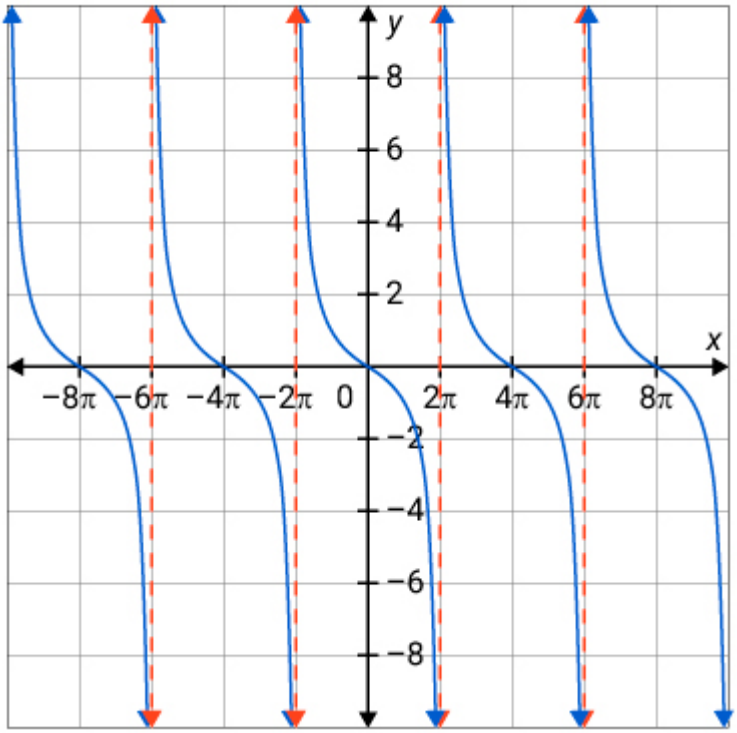


Graph B

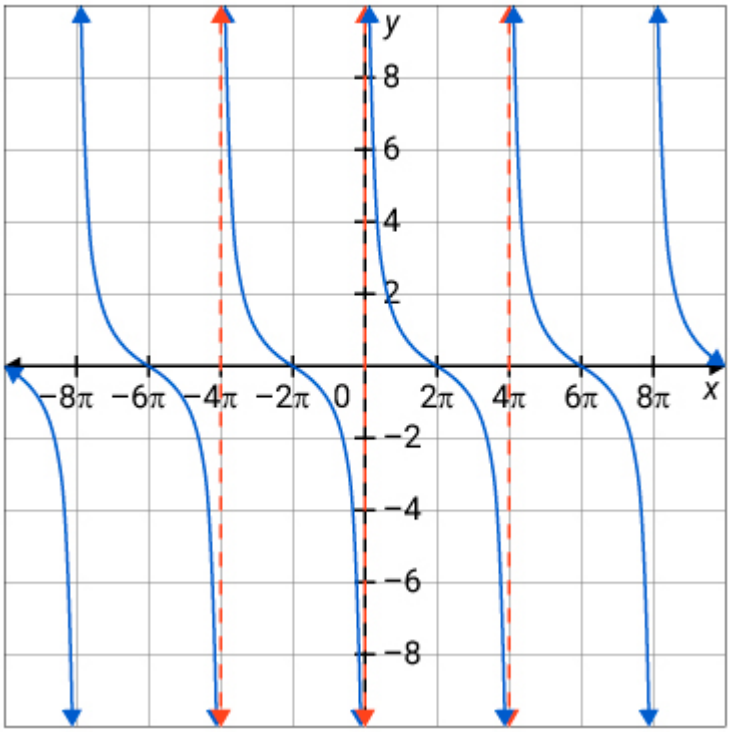


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Graph C



Graph D



The graph for the function

$$y = \tan\left(\frac{1}{4}x\right)$$

is Graph A ✓.

Graph D | Graph C | Graph B

QUESTION 19

Drag and drop the correct answer into the space(s) provided.

Find the period of this tangent function.

The period of

$y = 2\tan(3x)$

is $\frac{\pi}{3}$ ✓.

2π | 3π | $\frac{\pi}{2}$

QUESTION 20

Fill in the blank(s) with the correct answer.

Find the period of this tangent function.

The period of

$y = \tan(8x)$

is $\frac{\pi}{8}$ ✓.

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QUESTION 21

Choose the correct answer from the drop-down menu.

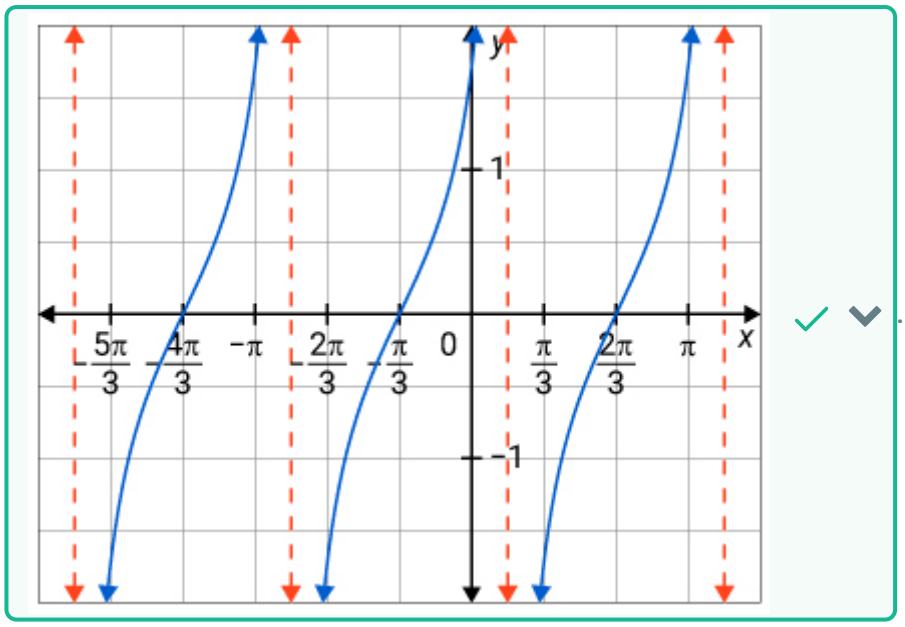
Locate the vertical asymptotes and choose the graph of the tangent function

$$y = \tan\left(x + \frac{4\pi}{3}\right)$$

.

The graph for the function

$$y = \tan\left(x + \frac{4\pi}{3}\right)$$

is 

.

QUESTION 22

Choose the correct answer from the drop-down menu.

Find the period of this tangent function.

The period of

$$y = \tan\left(\frac{1}{6}x\right)$$

is 6π ✓ .

QUESTION 23

Choose the correct answer from the drop-down menu.

Determine the period of this tangent function.

The period of

$$y = 5\tan\left(\frac{1}{3}x\right)$$

is 3π ✓ .

QUESTION 24

Choose the correct answer from the drop-down menu.

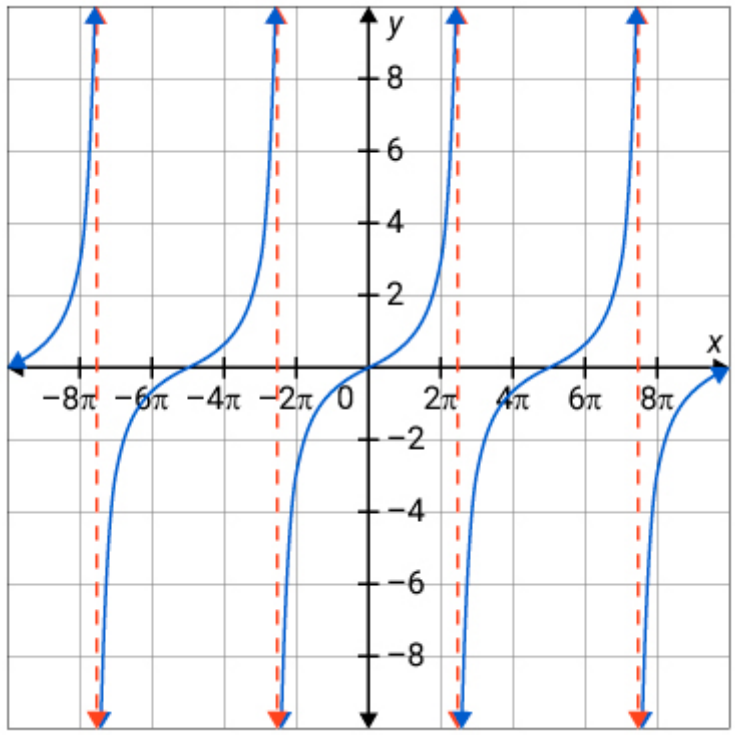
Locate the vertical asymptotes and choose the graph of

$$y = \tan\left(\frac{1}{5}x\right)$$

.

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QUESTION 25

Select the correct option.

Two consecutive vertical asymptotes of the tangent function

$$y = \tan\left(x - \frac{6\pi}{5}\right)$$

are:

- $x = -\frac{\pi}{2}$ and $x = \frac{\pi}{2}$
- $x = \frac{7\pi}{10}$ and $x = \frac{17\pi}{10}$ ✓

$x = \frac{\pi}{5}$ and $x = -\frac{\pi}{5}$

$x = \frac{6\pi}{5}$ and $x = -\frac{6\pi}{5}$

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QUESTION 26

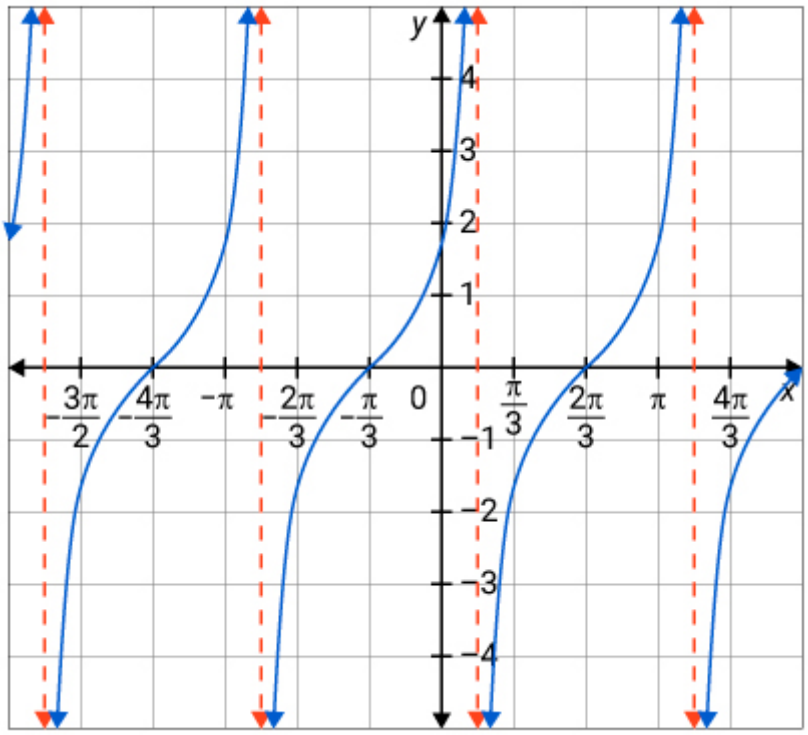
Select the correct option.

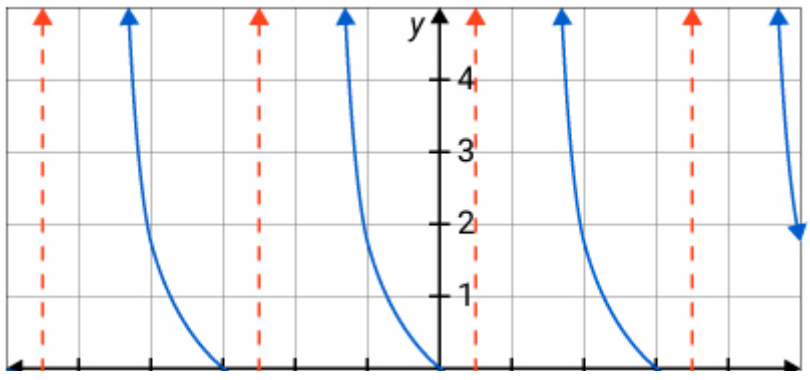
Locate the vertical asymptotes and choose the graph of the tangent function

$y = -\tan\left(x - \frac{\pi}{6}\right)$

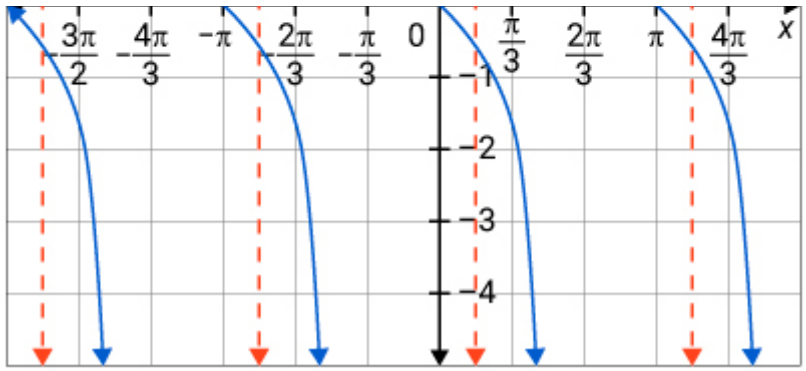
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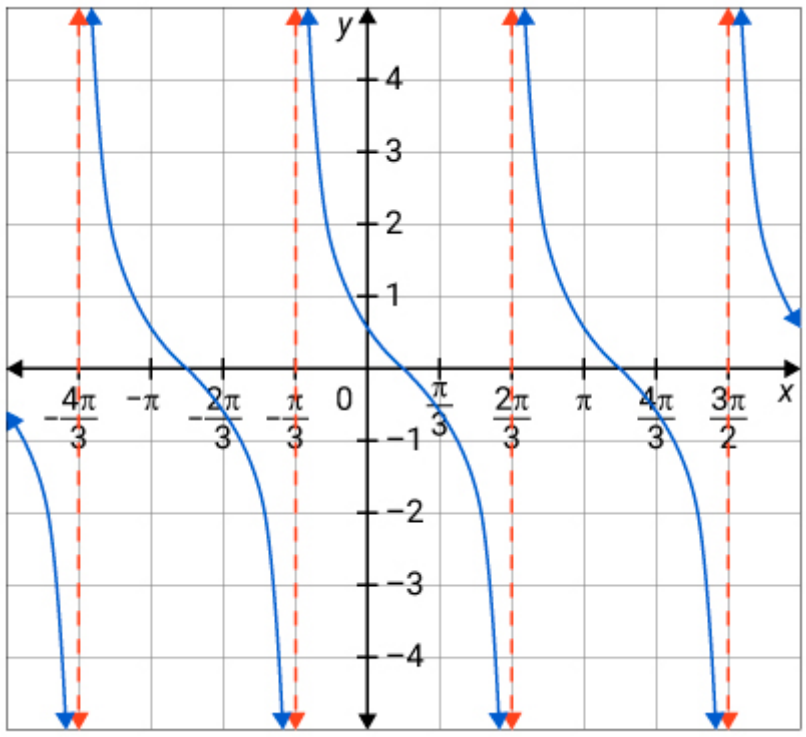
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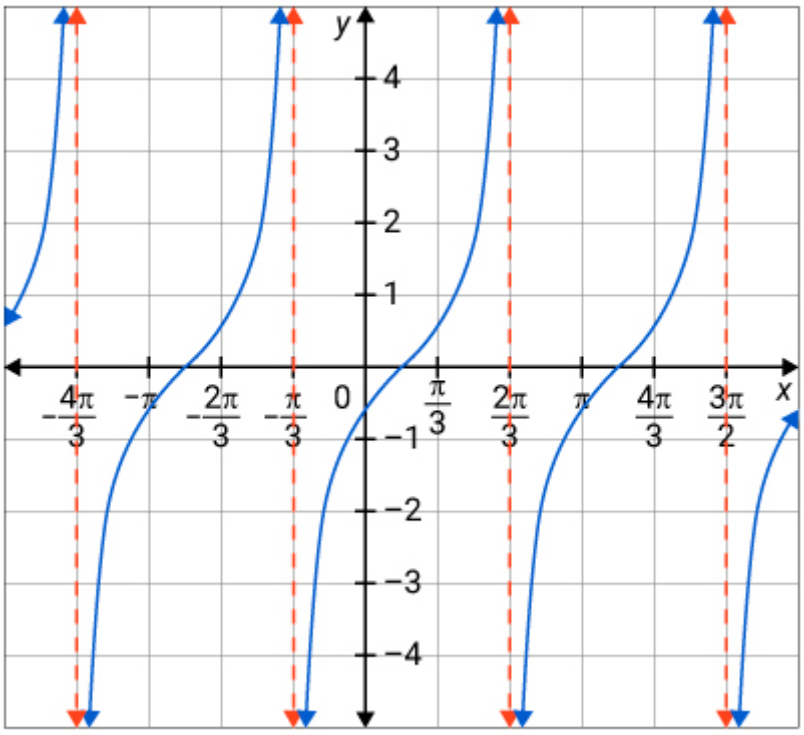


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QUESTION 27

Select the correct option.

Locate the vertical asymptotes of the tangent function

$$y = \tan\left(\frac{4}{7}x\right)$$

.

- ◉ $x = -\frac{7\pi}{8}$ and $x = \frac{7\pi}{8}$ ✓
- ○ $x = -\frac{7\pi}{2}$ and $x = \frac{7\pi}{2}$
- ○ $x = -\frac{7\pi}{4}$ and $x = \frac{7\pi}{4}$
- ○ $x = -7\pi$ and $x = 7\pi$

QUESTION 28

Select the correct option.

Find the period of the function

$$y = -\frac{1}{4}\tan(2x)$$

.

- ○ 2π

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https://t.me/+CbbW8n6Up6U5OGE8

- 4π
- $\frac{\pi}{2}$ ✓
- $\frac{\pi}{4}$

QUESTION 29

Select the correct option.

Two consecutive vertical asymptotes of the tangent function $y = \tan(4x)$ are:

- $x = -\frac{\pi}{8}$ and $x = \frac{\pi}{8}$ ✓
- $x = -\frac{\pi}{4}$ and $x = \frac{\pi}{4}$
- $x = -\frac{\pi}{2}$ and $x = \frac{\pi}{2}$
- $x = -\pi$ and $x = \pi$

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QUESTION 30

Which of the following is true? Select all that apply.

- [ ] The range of $y = \cot\ x$ is $(-\infty, -1] \cup [1, \infty)$.
- [ ] The cosecant function is the only function with a y-intercept.
- [x] Infinite discontinuities occur at $x = n\pi,\ n \in \mathbb{Z}$ for $y = \cot\ x$.
- [ ] The domain for $y = \sec\ x$ and $y = \csc\ x$ is $(-\infty, -1] \cup [1, \infty)$.
- [ ] Vertical asymptotes occur at $x = \frac{\pi}{2} + n\pi,\ n \in \mathbb{Z}$

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- [ ] for $y = \csc\ x$.

- [x] $y = \sin\ x$ and $y = \csc\ x$ are odd functions. ✓

- [ ] $y = \cot\ x$ does not have x-intercepts.

- [x] The period of $y = \sec\ x$ and $y = \csc\ x$ is 2π . ✓