

https://t.me/+yI_iw77XeiFlZTg0



Exponential Functions and Equations

19. Graphing Exponential Function

 Lesson



 Review



View hints



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QUESTION 1



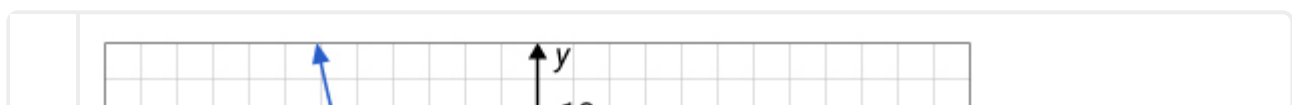
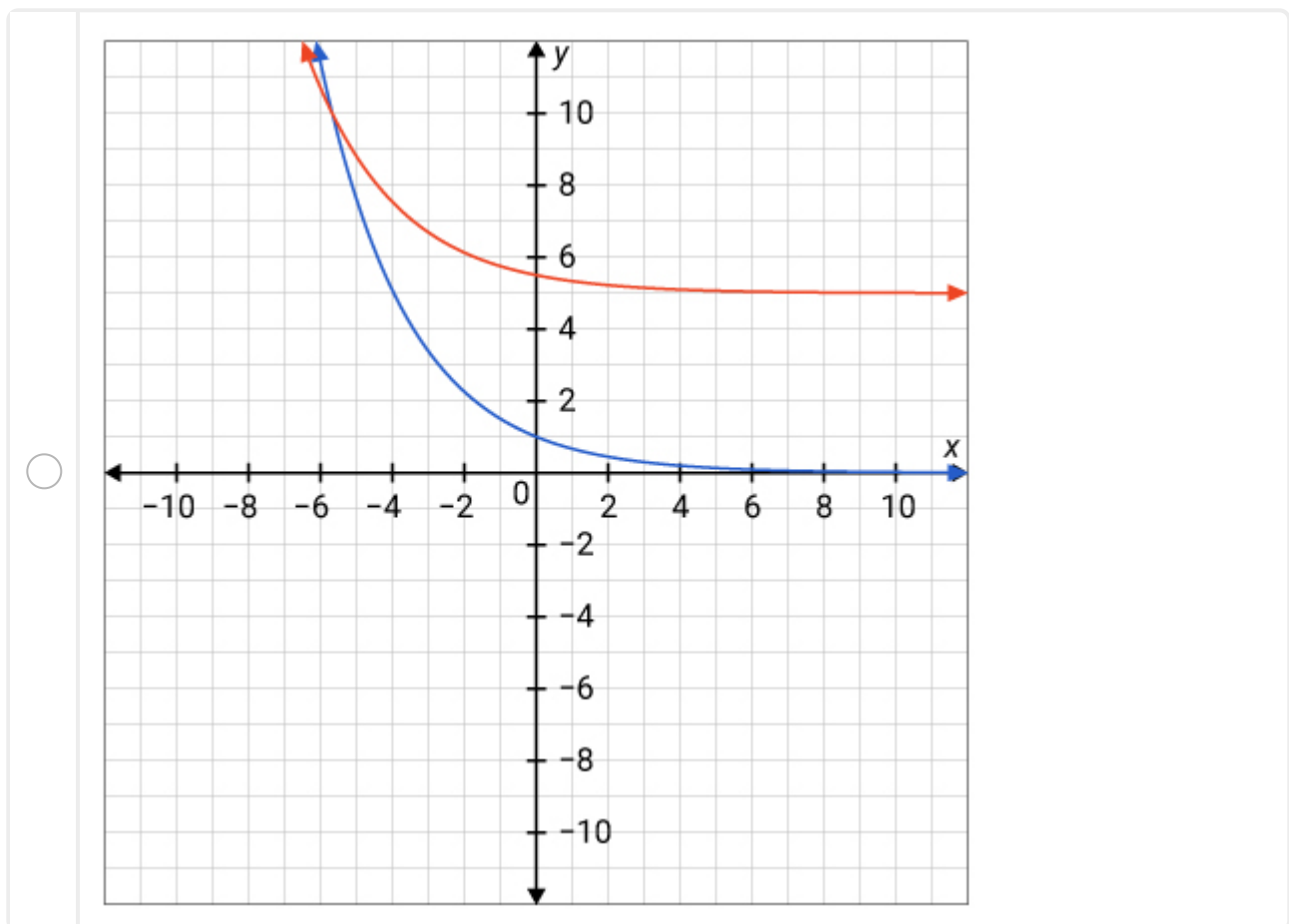
Which graph shows the parent function

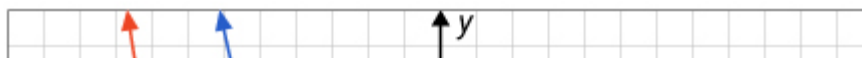
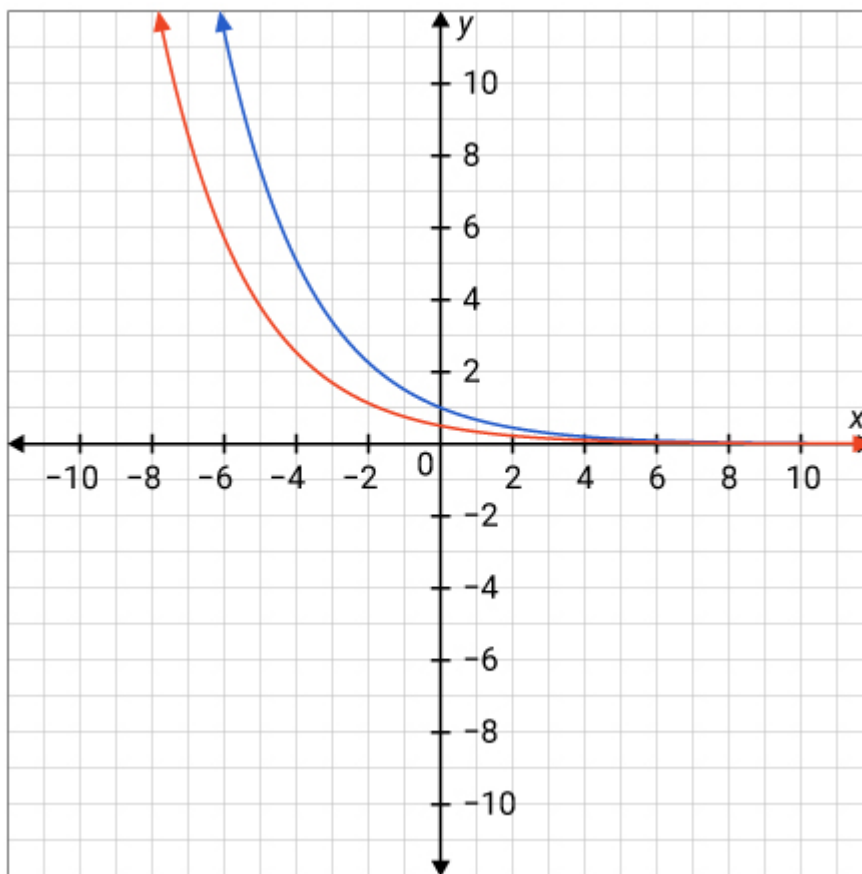
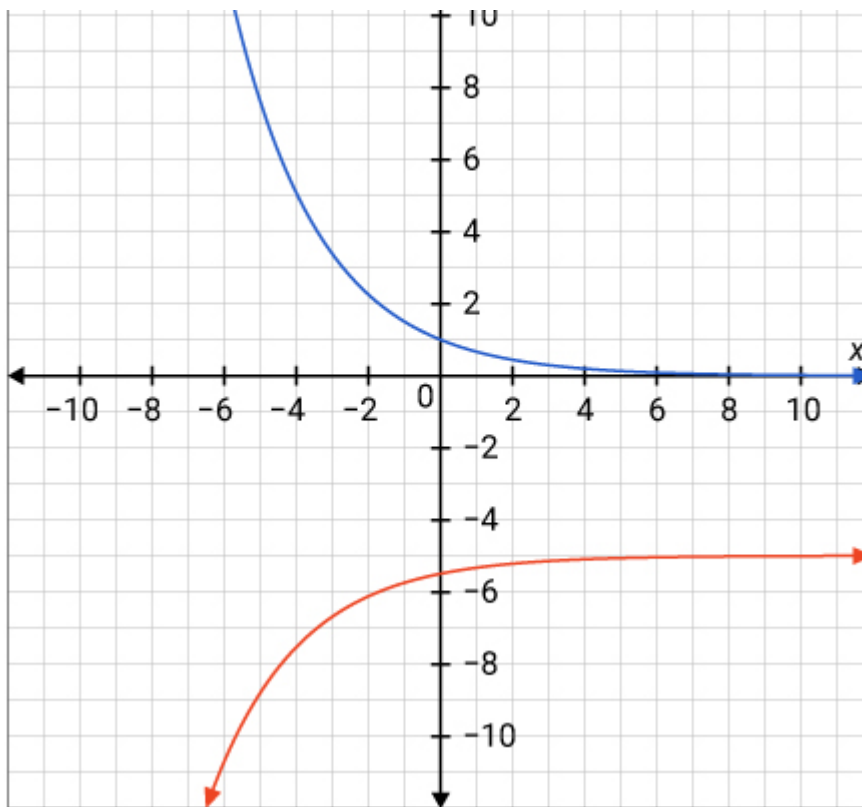
$$y = \left(\frac{2}{3}\right)^x$$

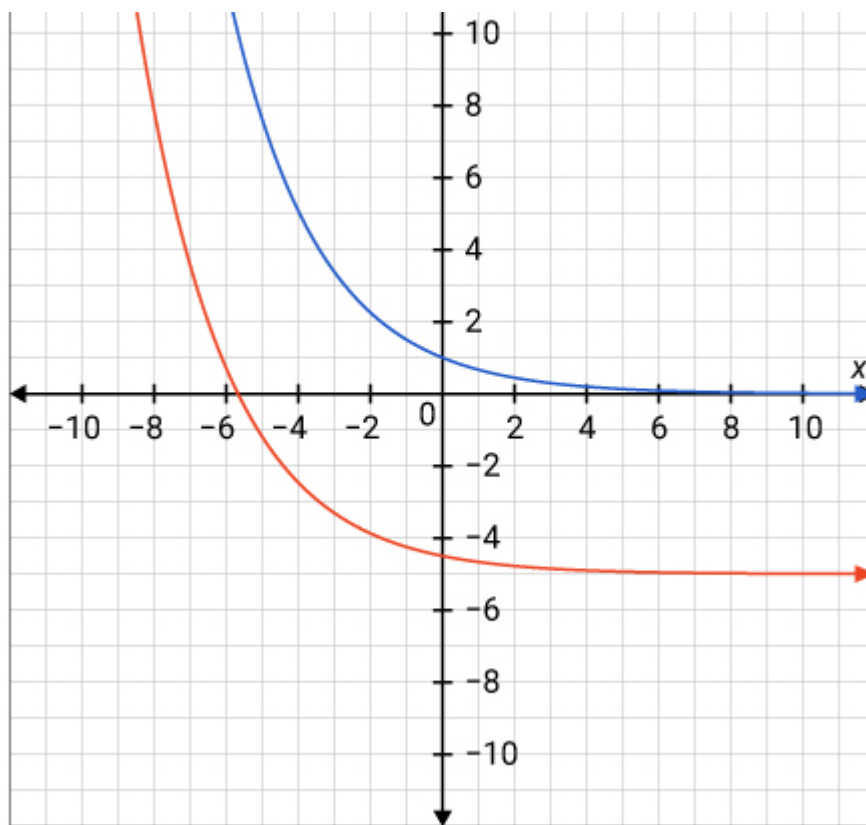
and the transformed function

$$y = \frac{1}{2} \left(\frac{2}{3}\right)^x - 5$$

?







QUESTION 2



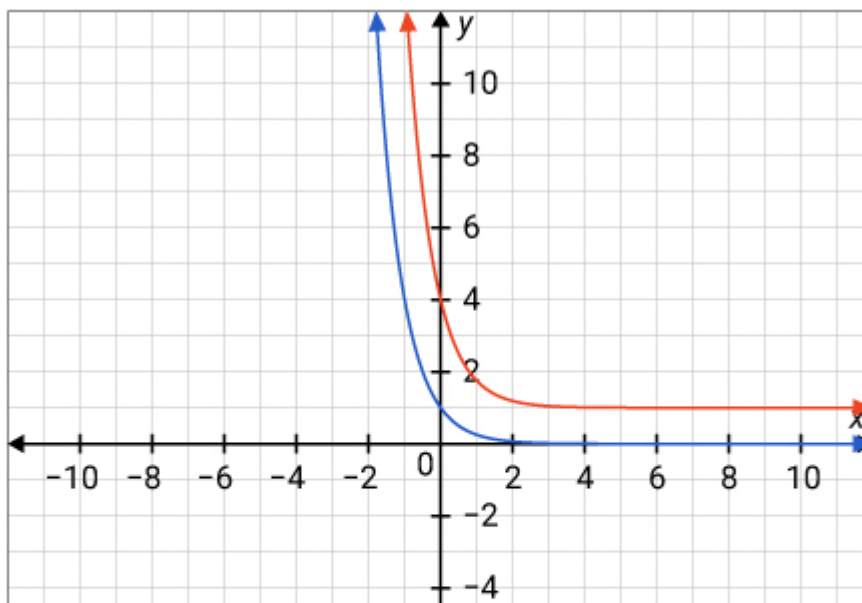
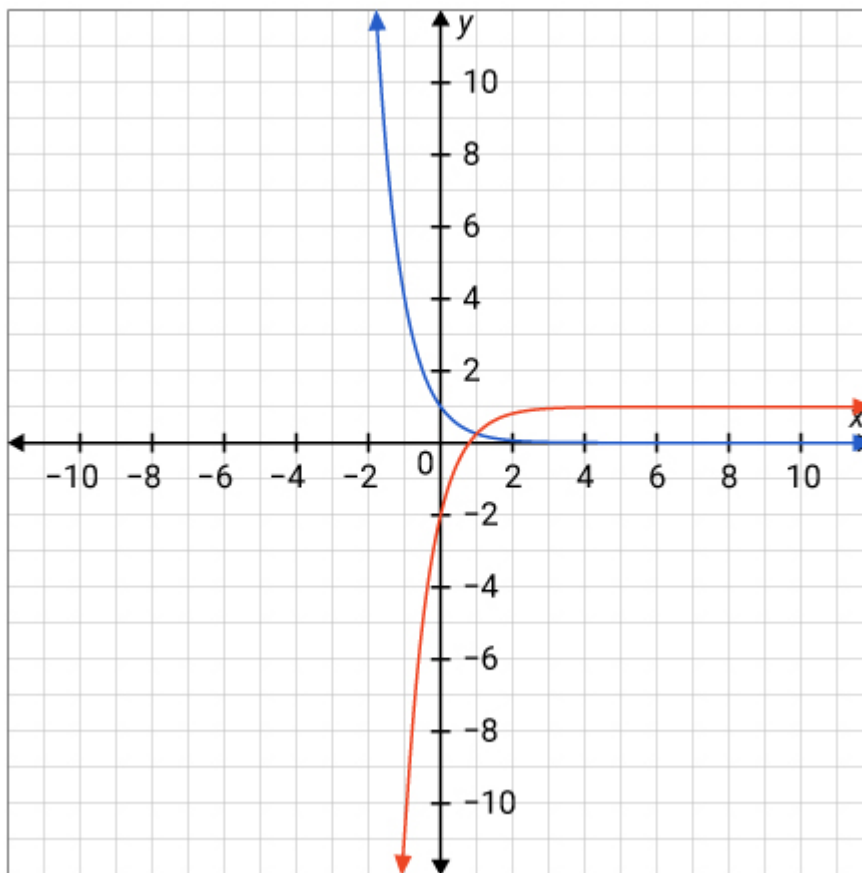
Which graph shows the parent function

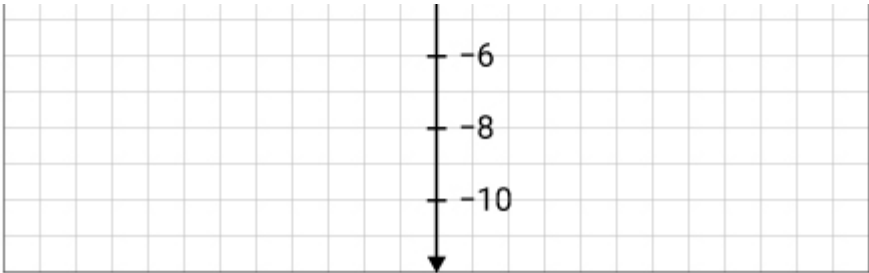
$$y = 0.25^x$$

and the transformed function

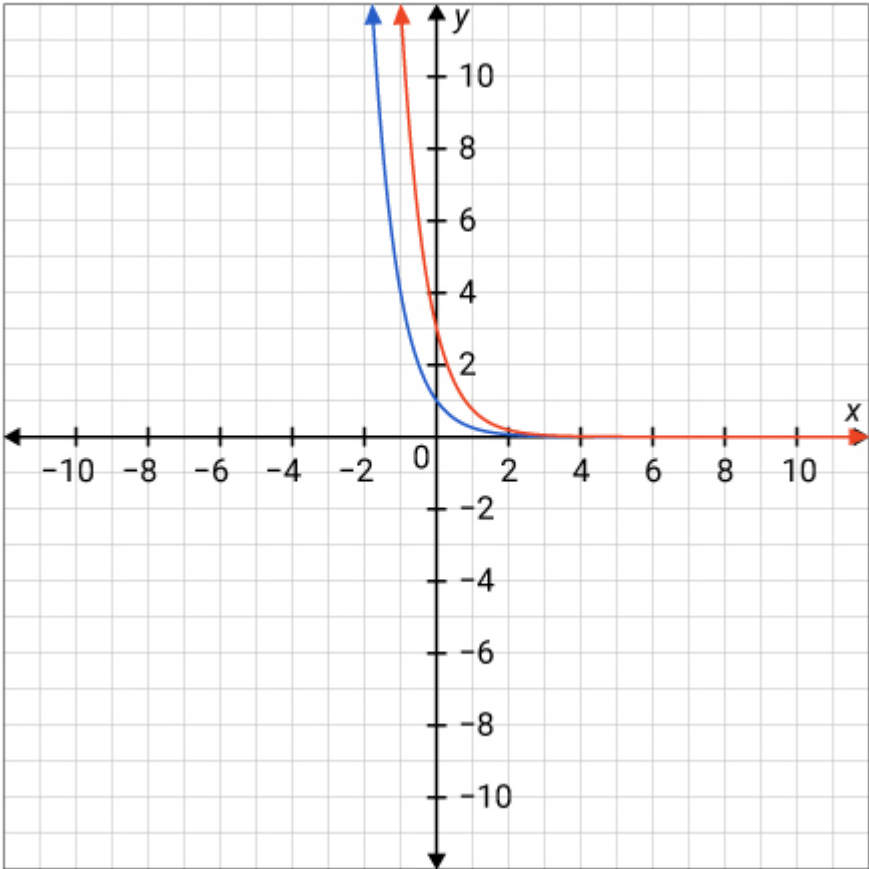
$$y = 3(0.25)^x + 1$$

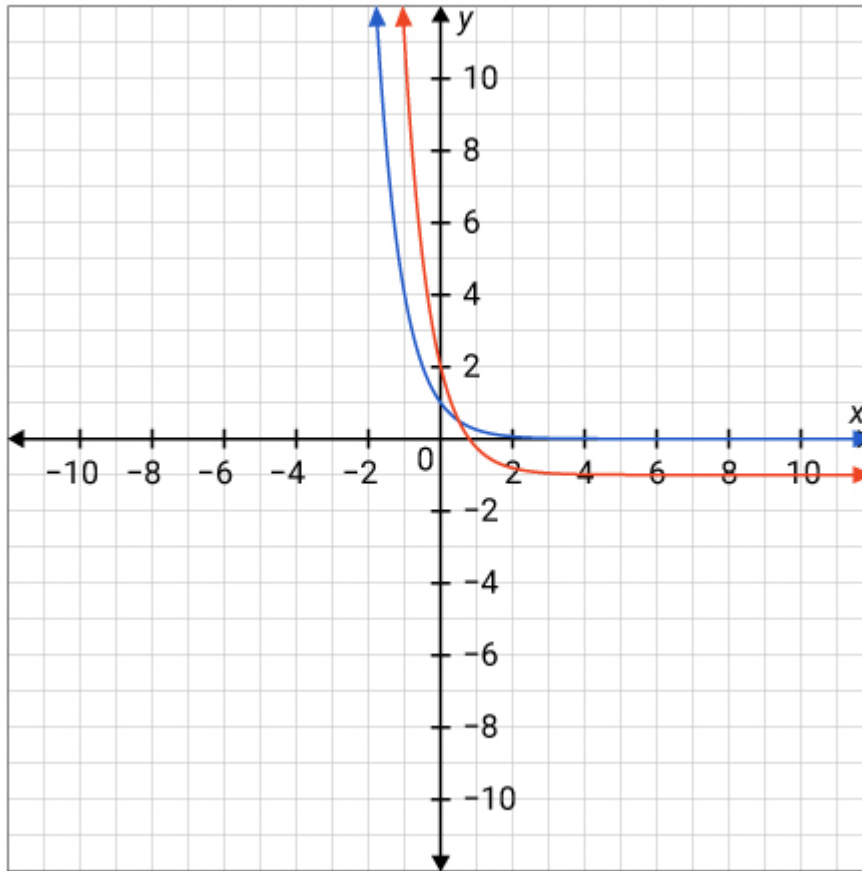
?





○





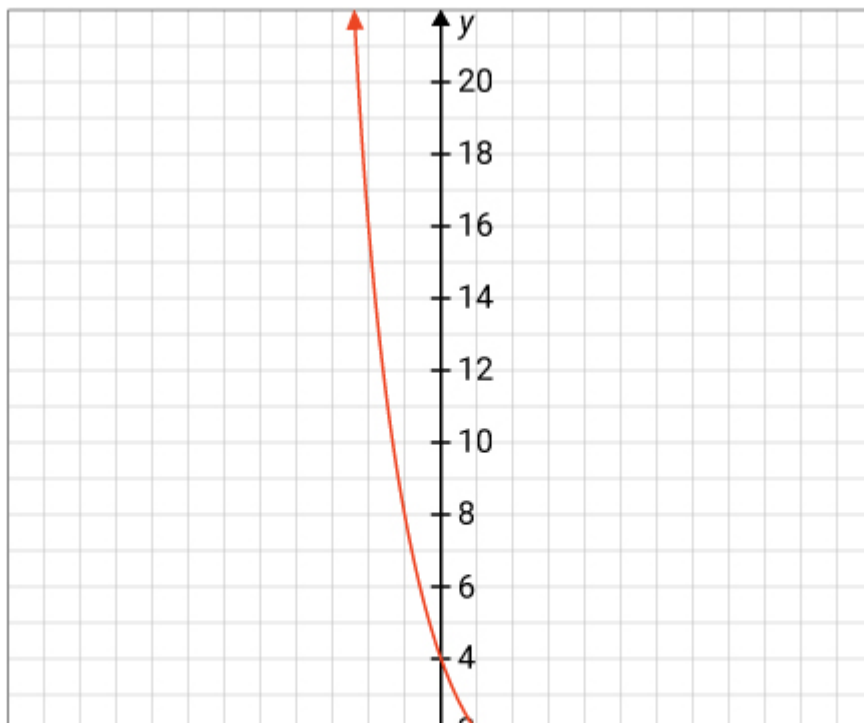
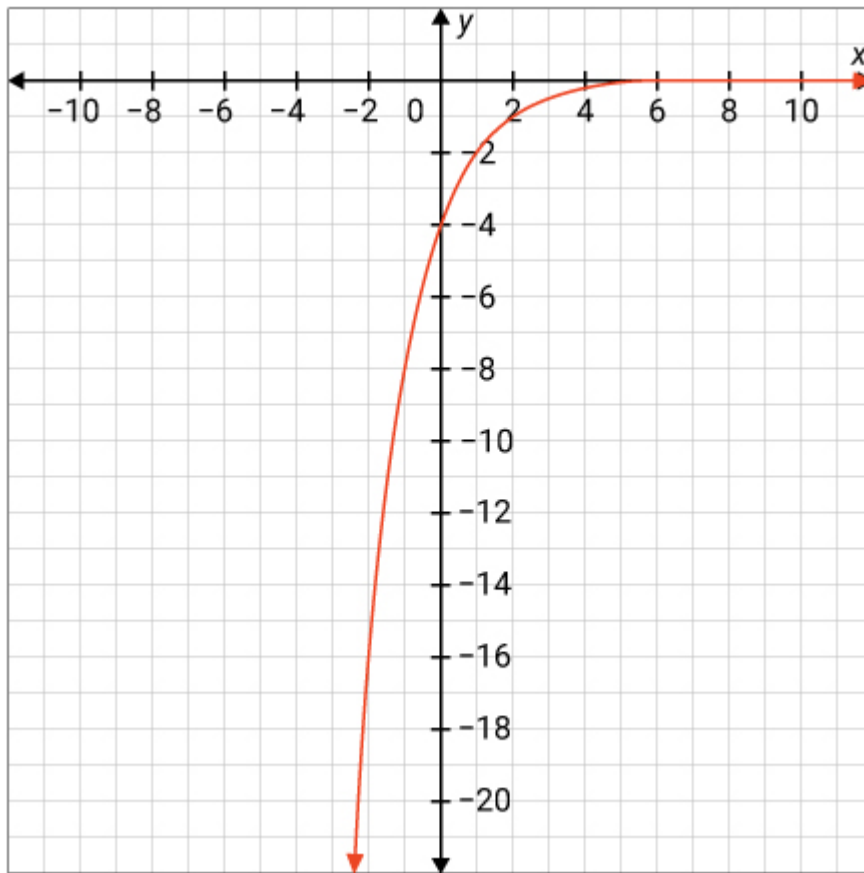
QUESTION 3

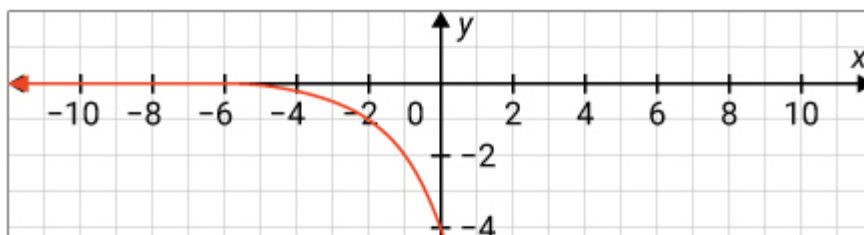
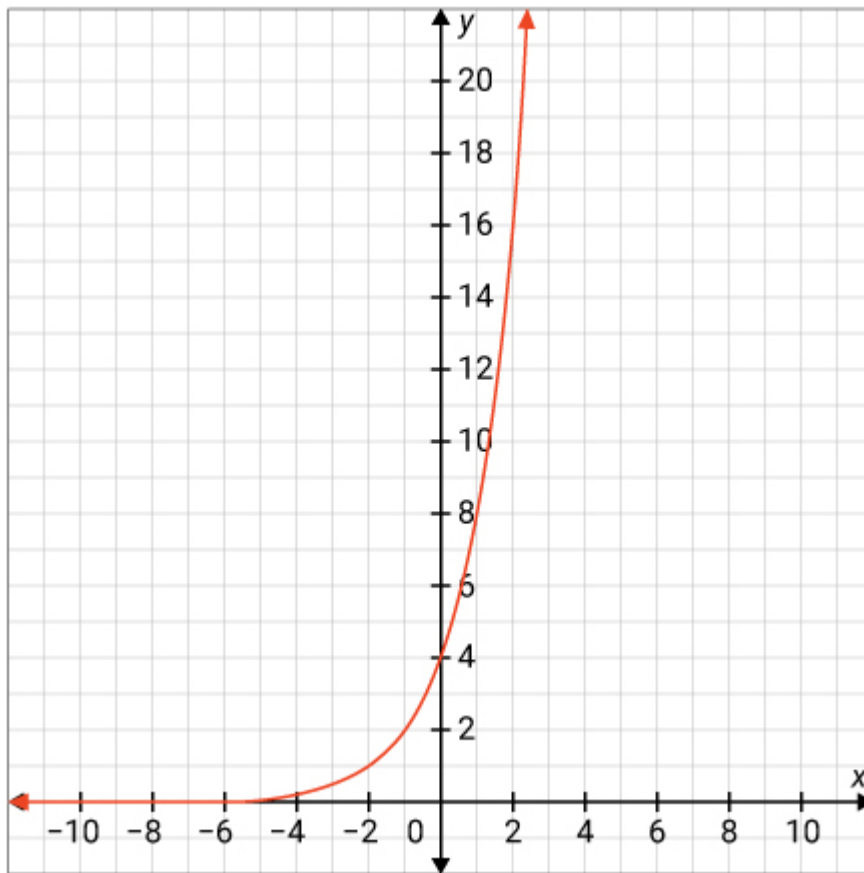
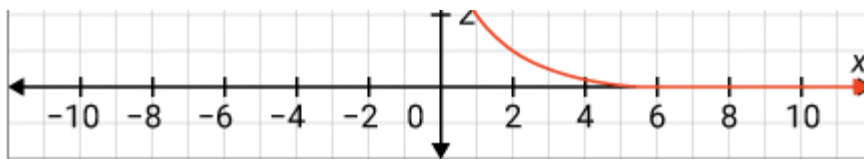


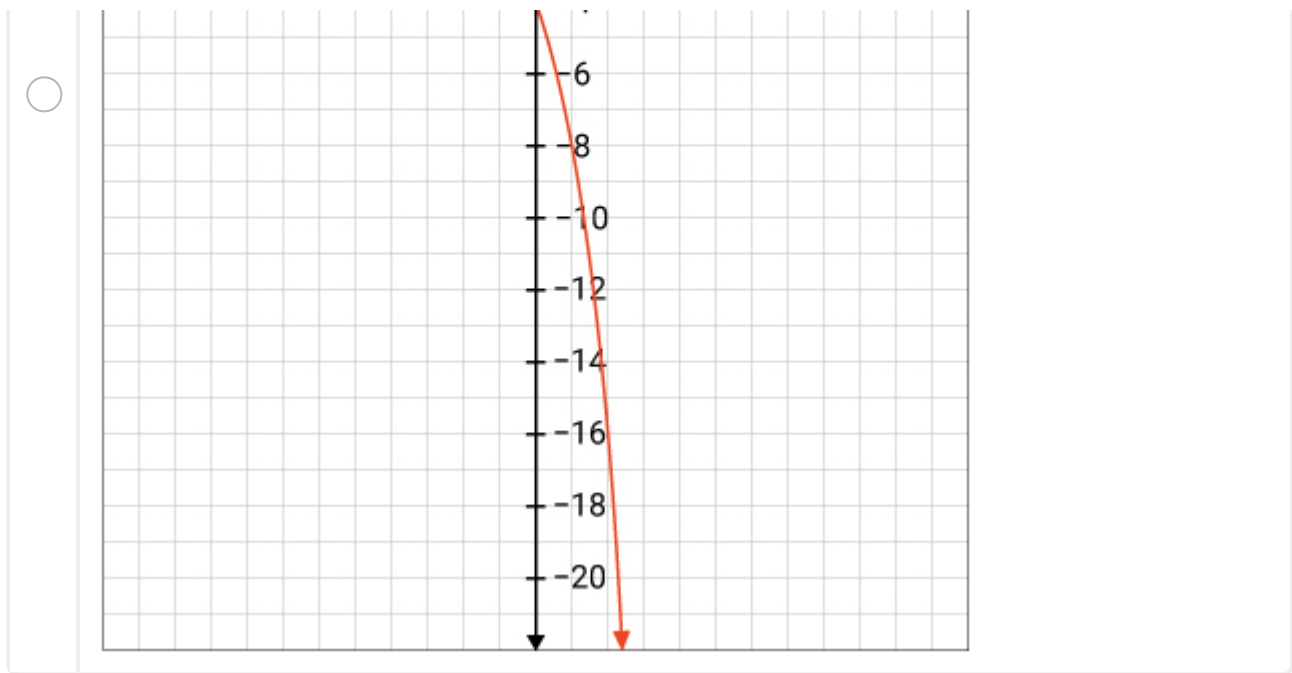
Which graph represents

$$y = -4\left(\frac{1}{2}\right)^x$$

?







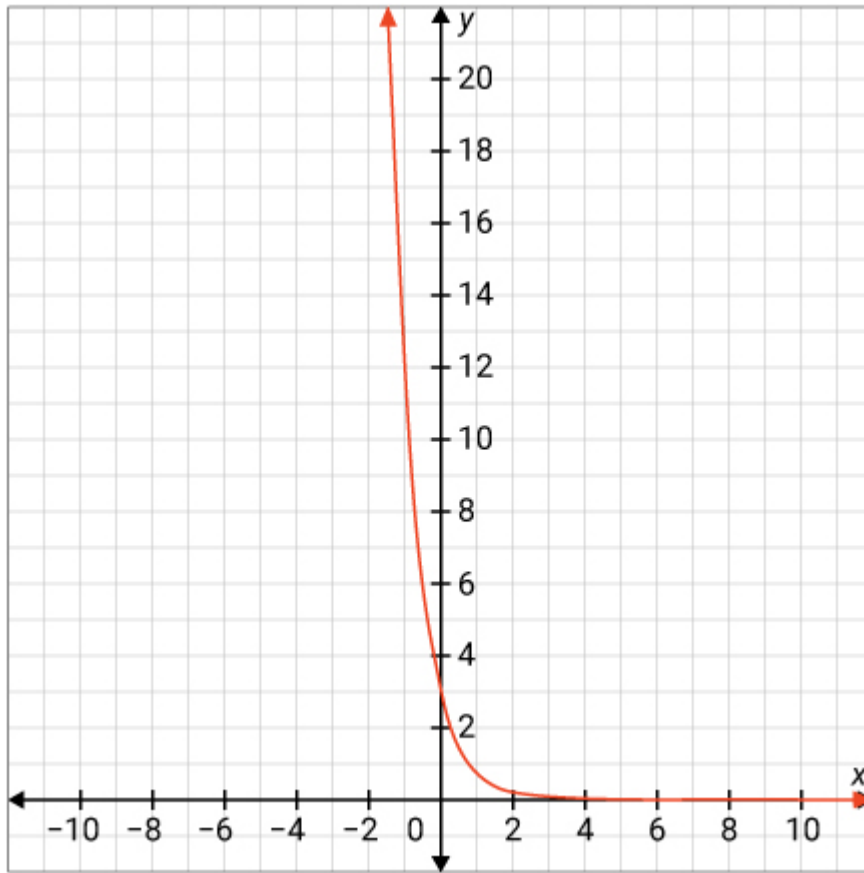
QUESTION 4

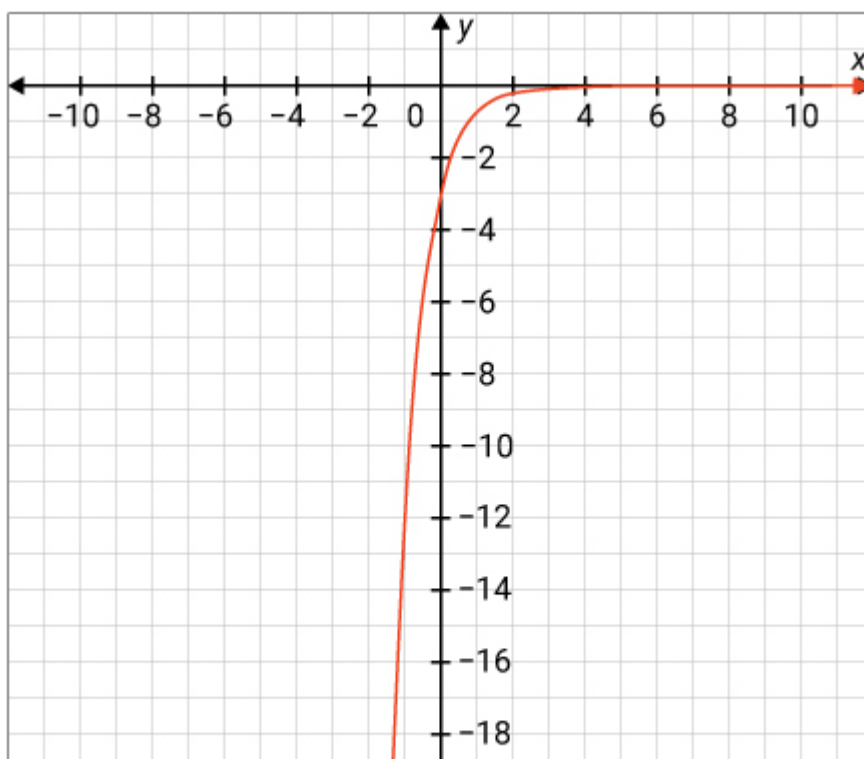
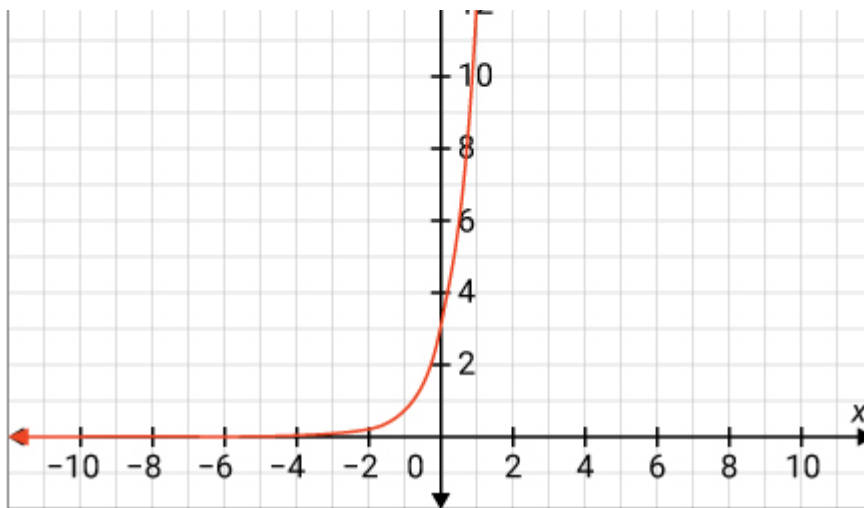


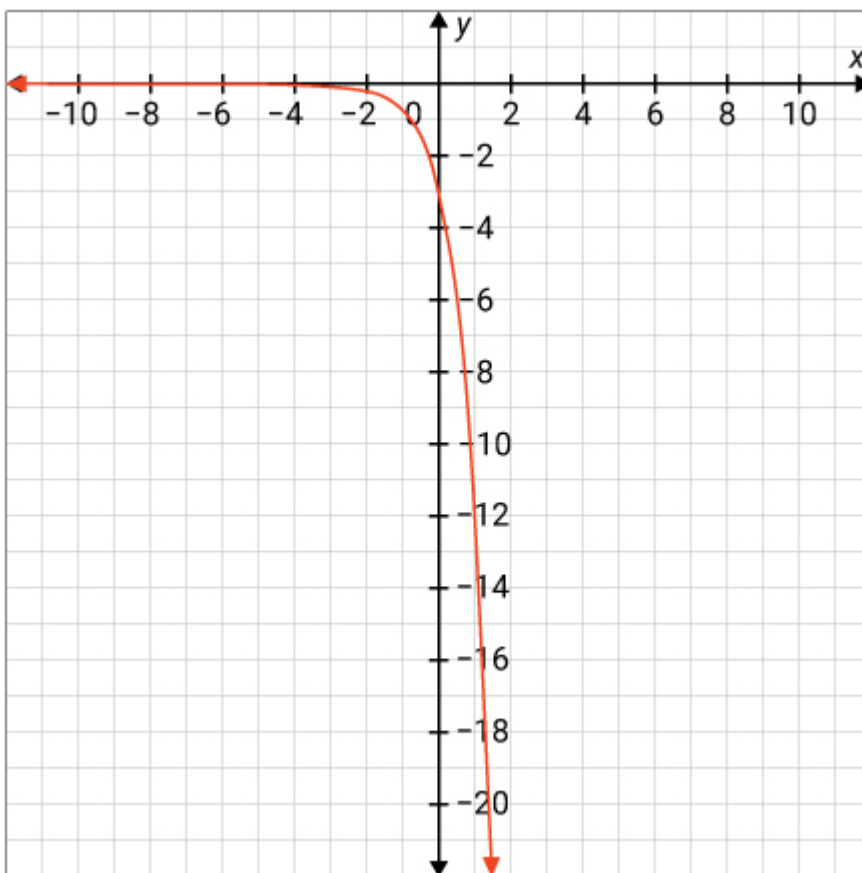
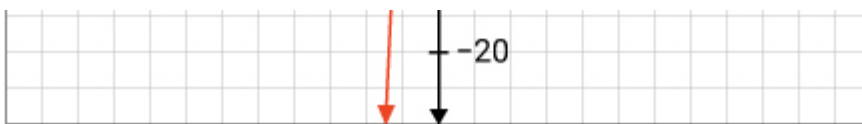
Which graph represents

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

?







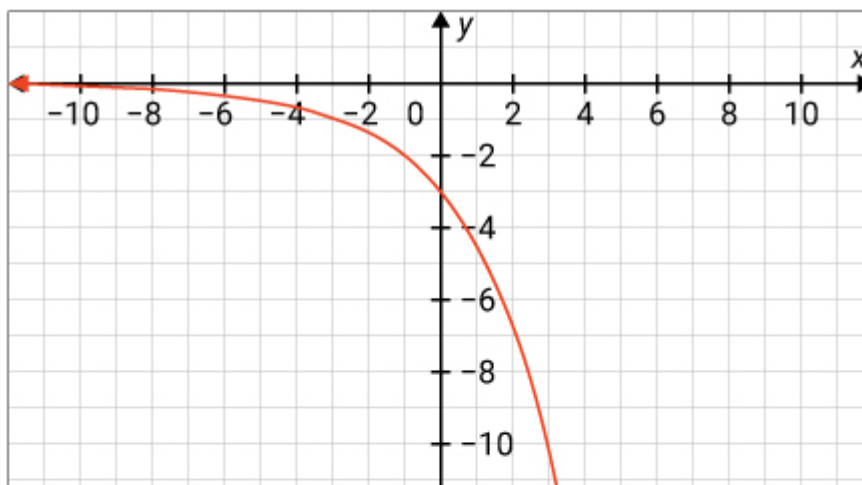
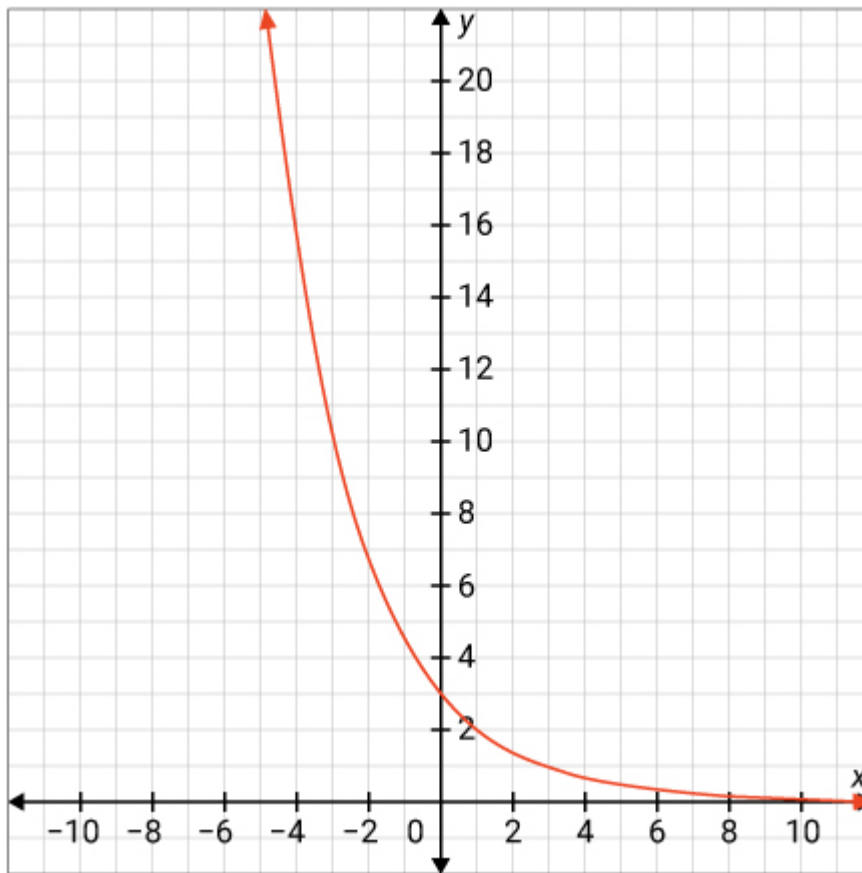
QUESTION 5

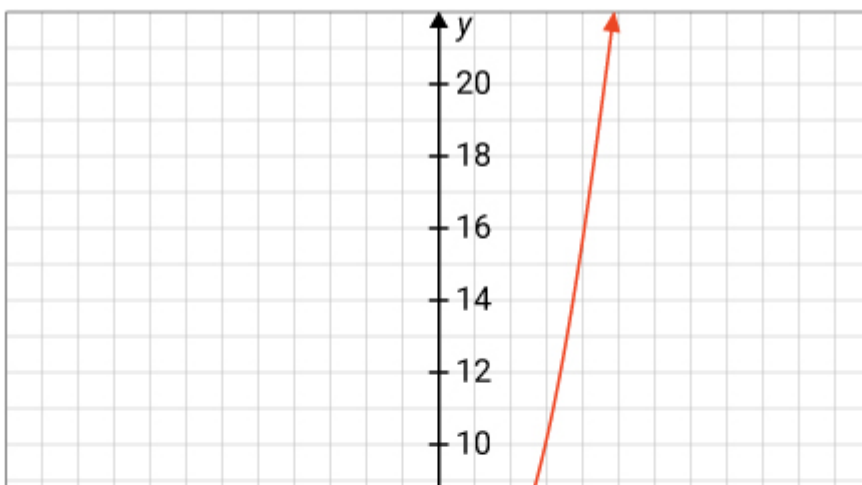
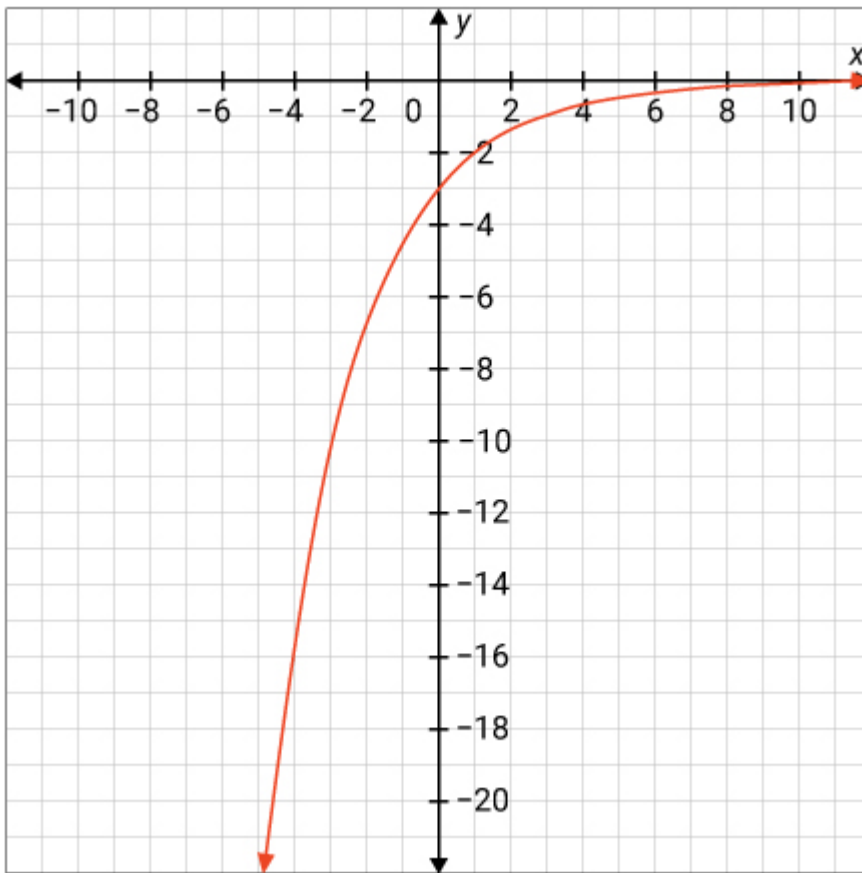
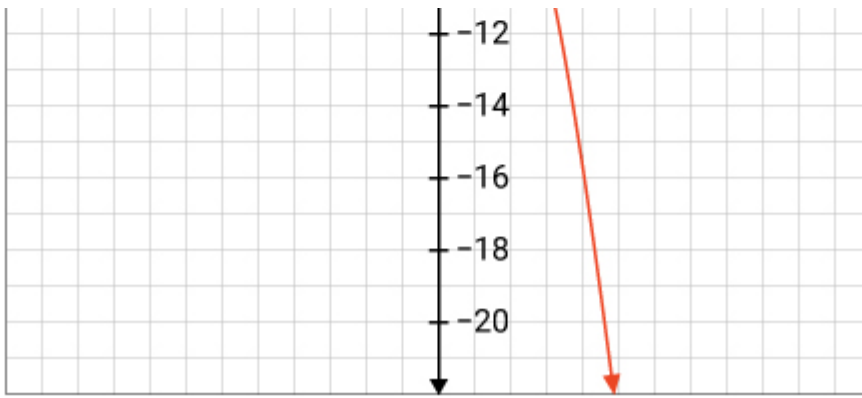


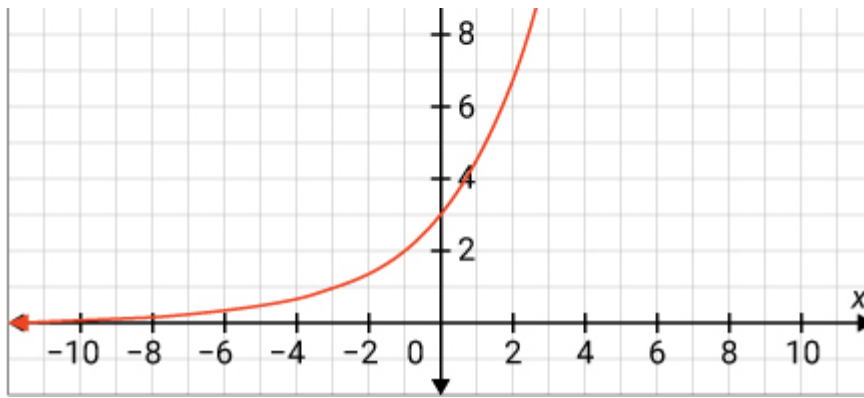
Which graph represents

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

?







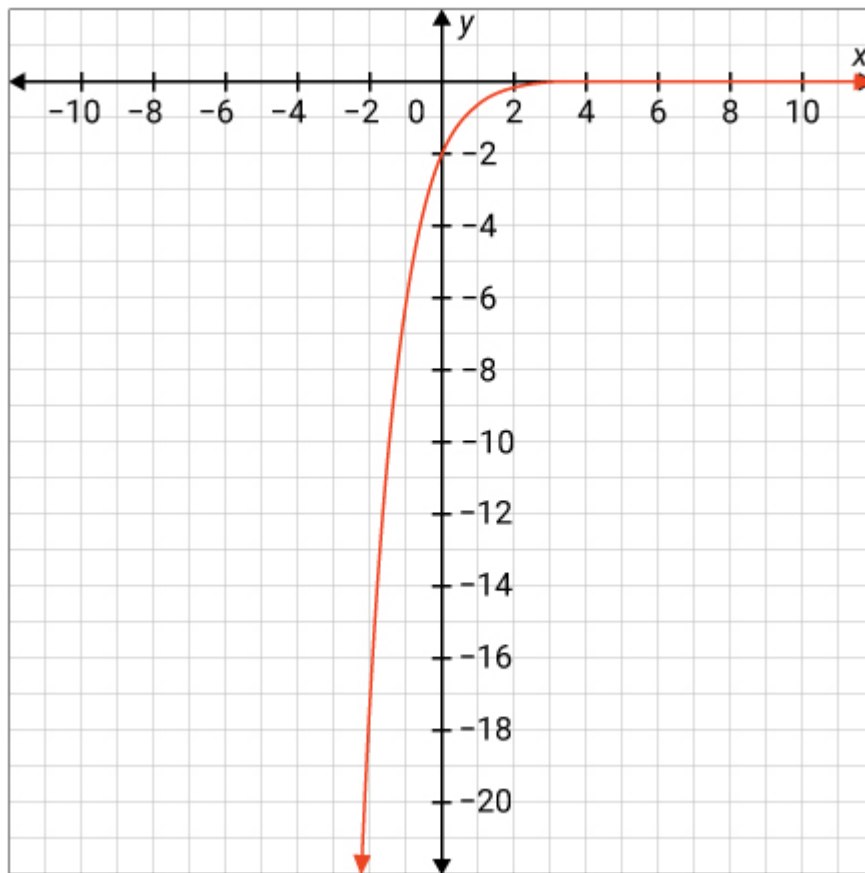
QUESTION 6



Identify the domain and range of

$$y = -2\left(\frac{1}{3}\right)^x$$

, shown in the graph.



Drag and drop the phrases to correctly complete the sentences.

The domain is all real numbers ✓ and the range is all negative real numbers ✓.

all real numbers greater than
 -2

all positive real numbers

all real numbers less than
 -2

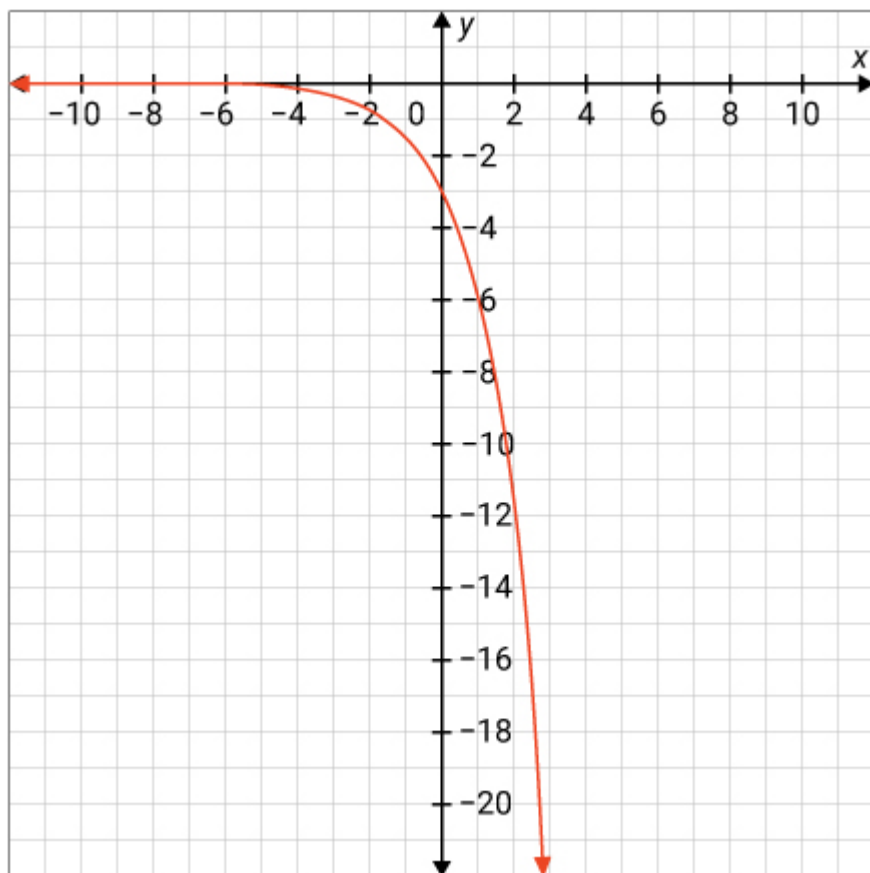
QUESTION 7



Identify the domain and range of

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

, shown in the graph.



Drag and drop the phrases to correctly complete the sentences.

The domain is all real numbers ✓ and the range is all negative real numbers ✓.

all real numbers less than
 -3

all real numbers greater than
 -3

all positive real numbers

QUESTION 8



Identify the

y

-intercept of

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

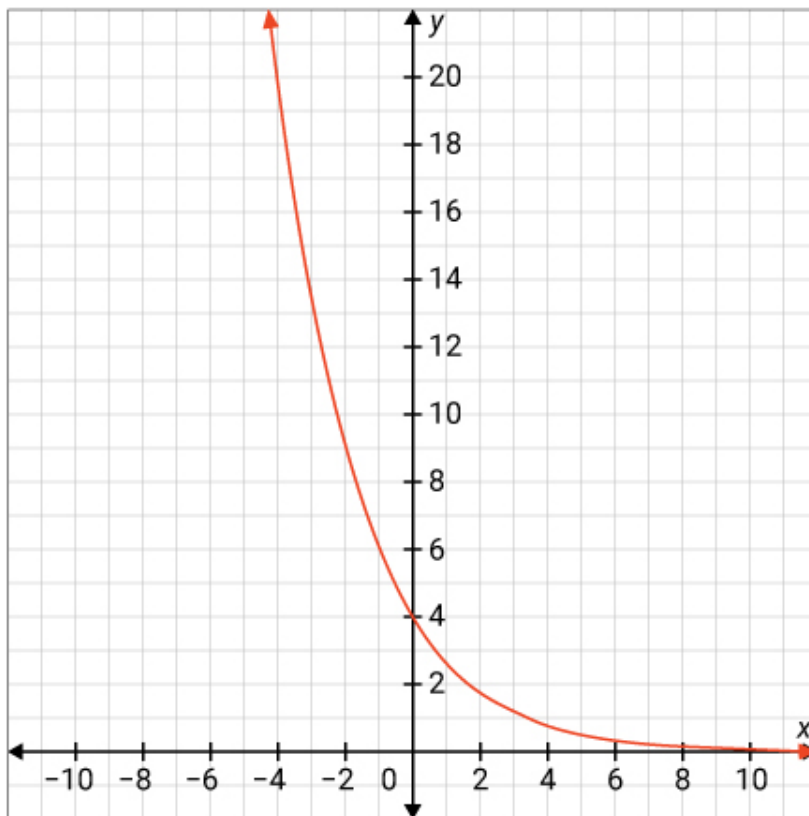
, shown in the graph.

Enter your answer in the spaces provided.

The

y

-intercept is



4



QUESTION 9



Identify the

y

-intercept of

$$y = -6(3)^x$$

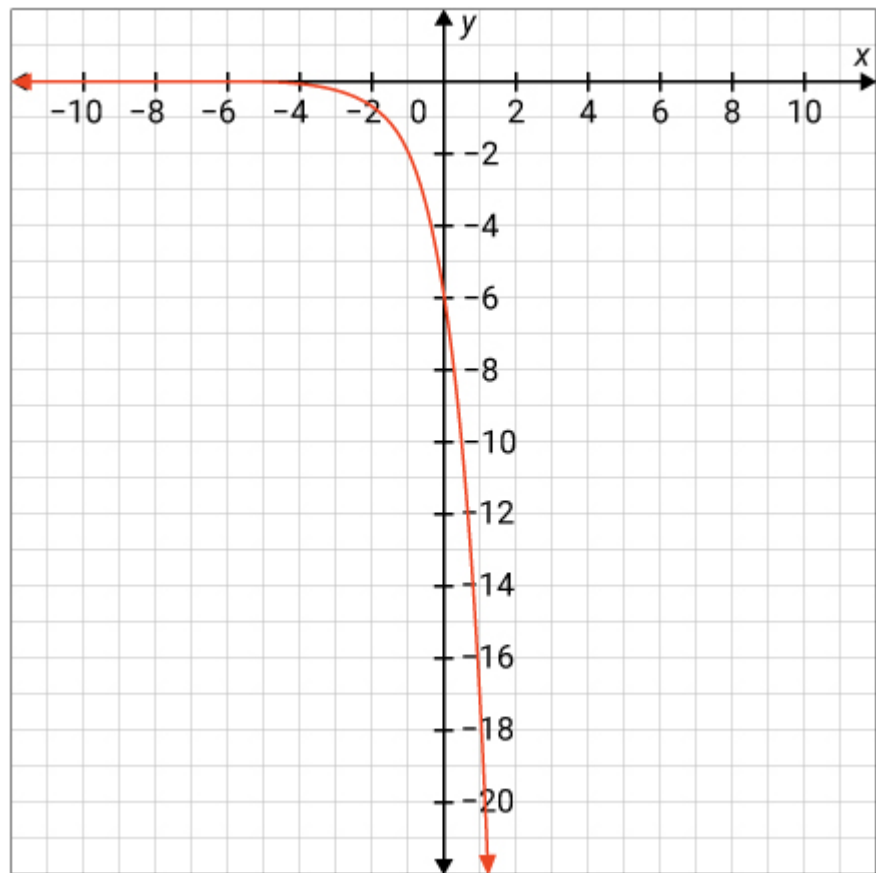
, shown in the graph.

Enter your answer in the spaces provided.

The

y

-intercept is



-6



QUESTION 10

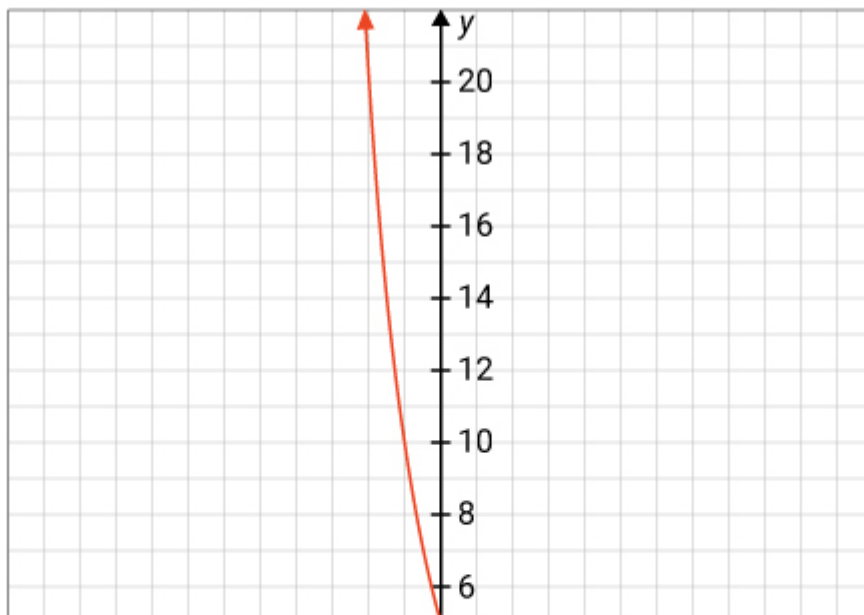
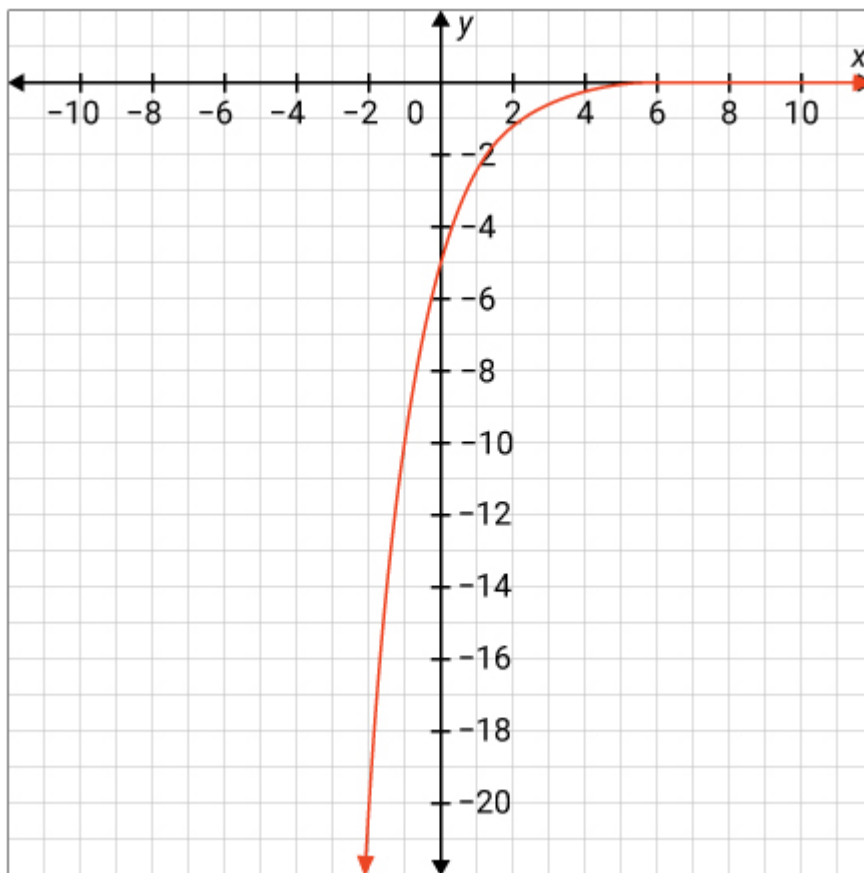


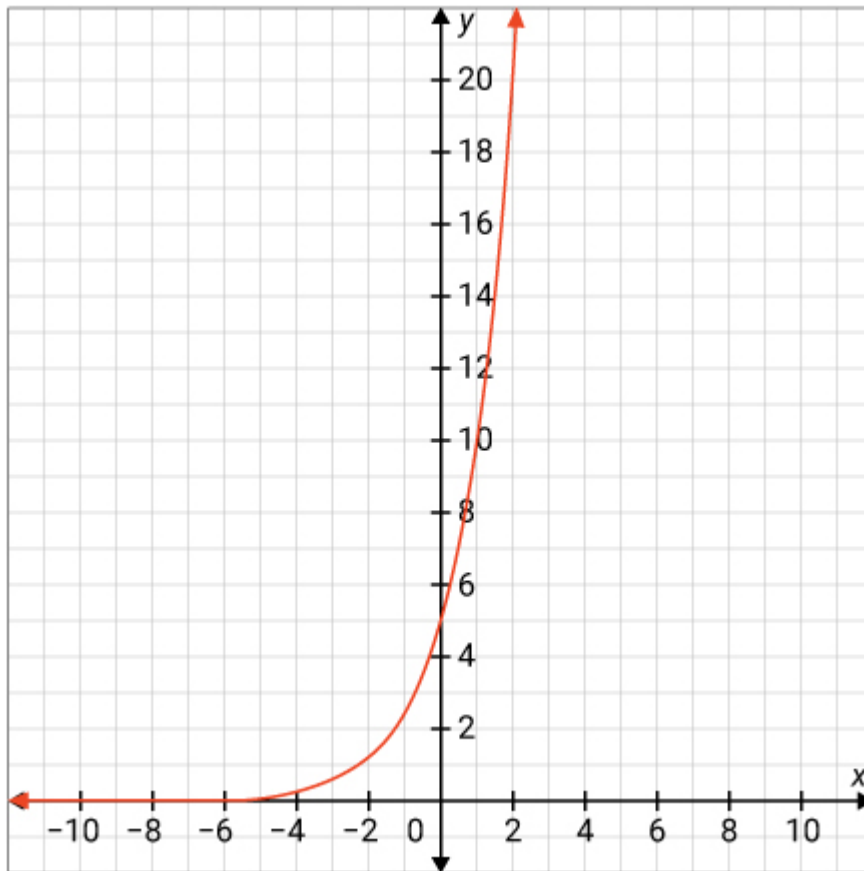
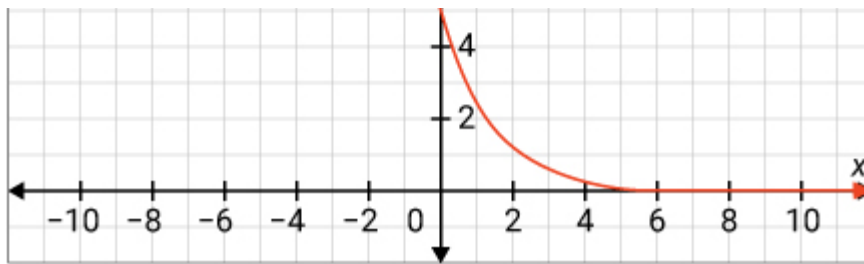
Which graph represents

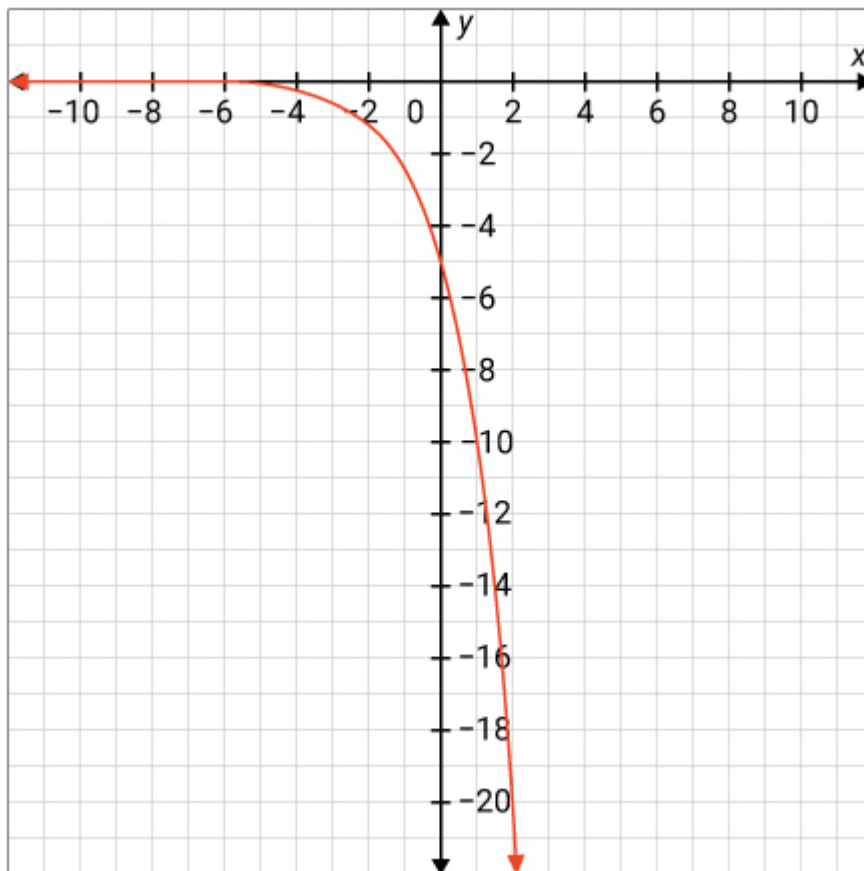
$$y = -5(2)^x$$

?

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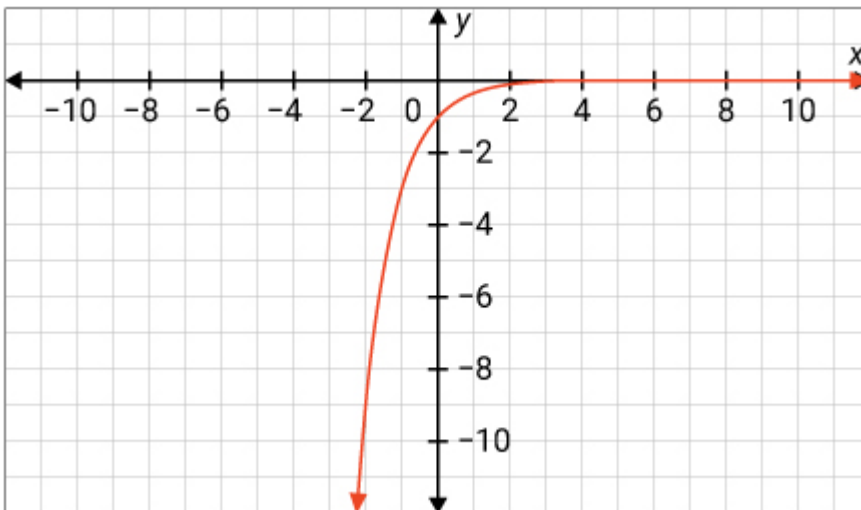
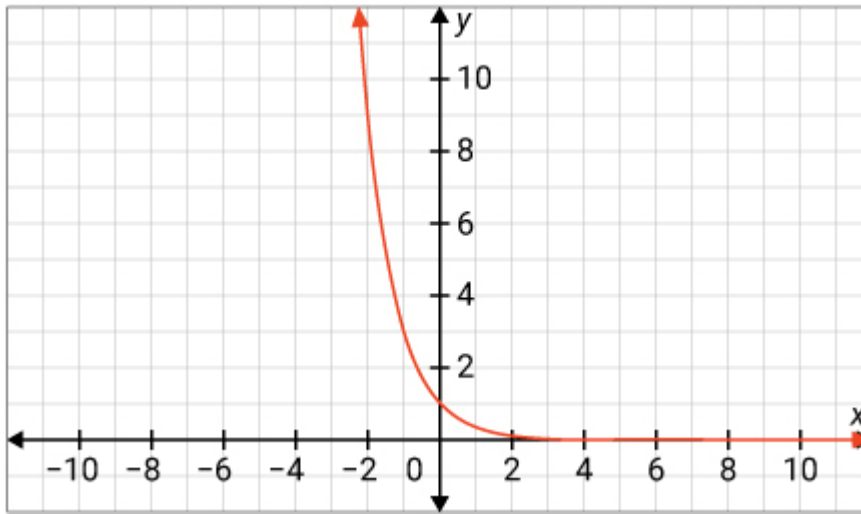
QUESTION 11

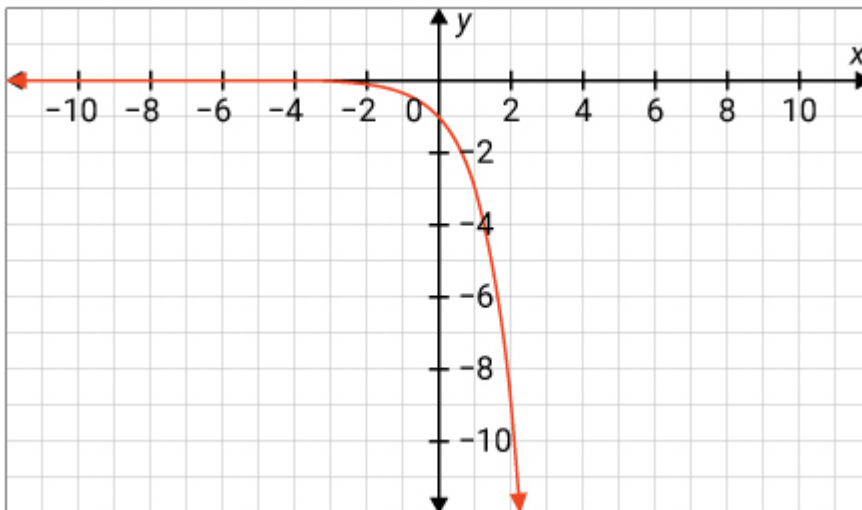


Which graph represents

$$y = -3^x$$

?





QUESTION 12



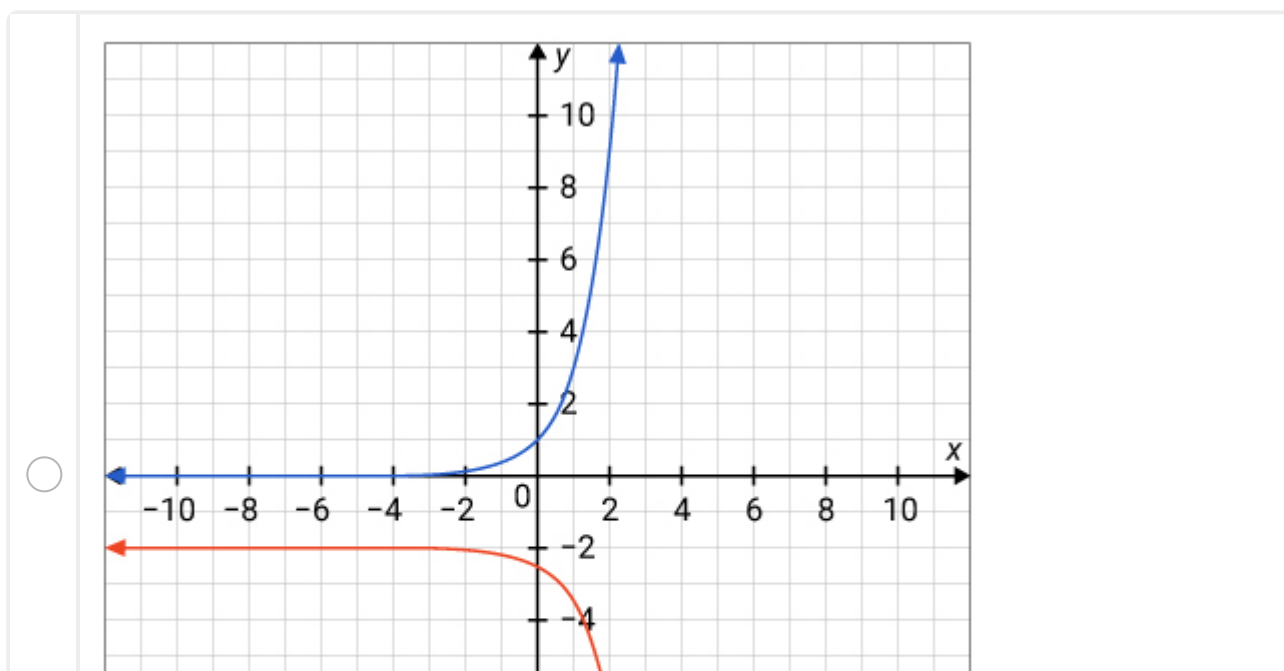
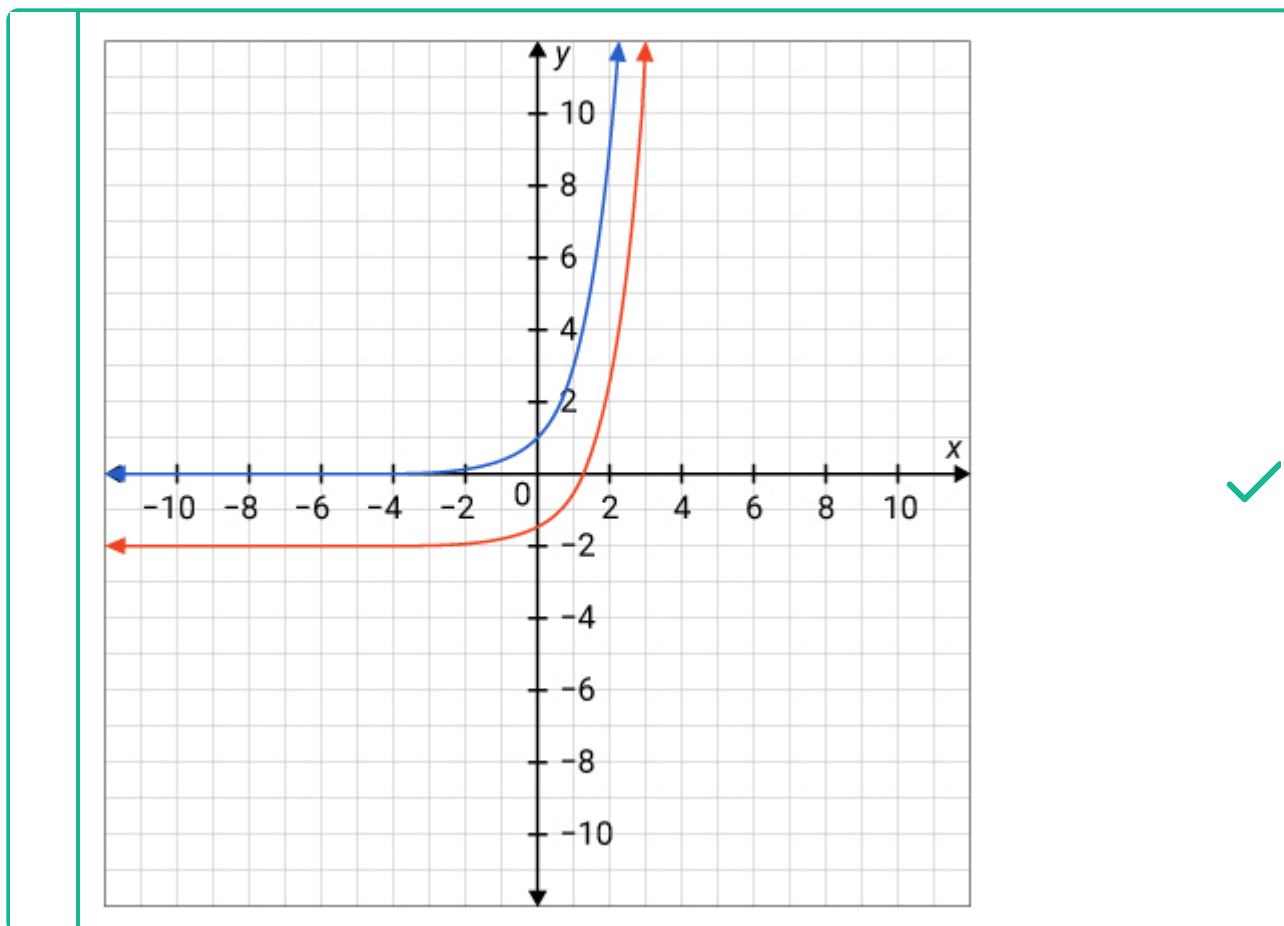
Which graph shows the parent function

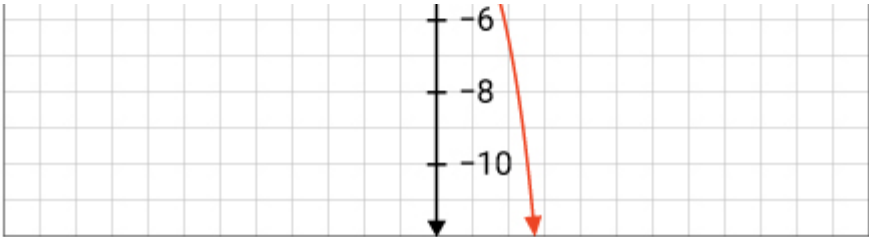
$$y = 3^x$$

and the transformed function

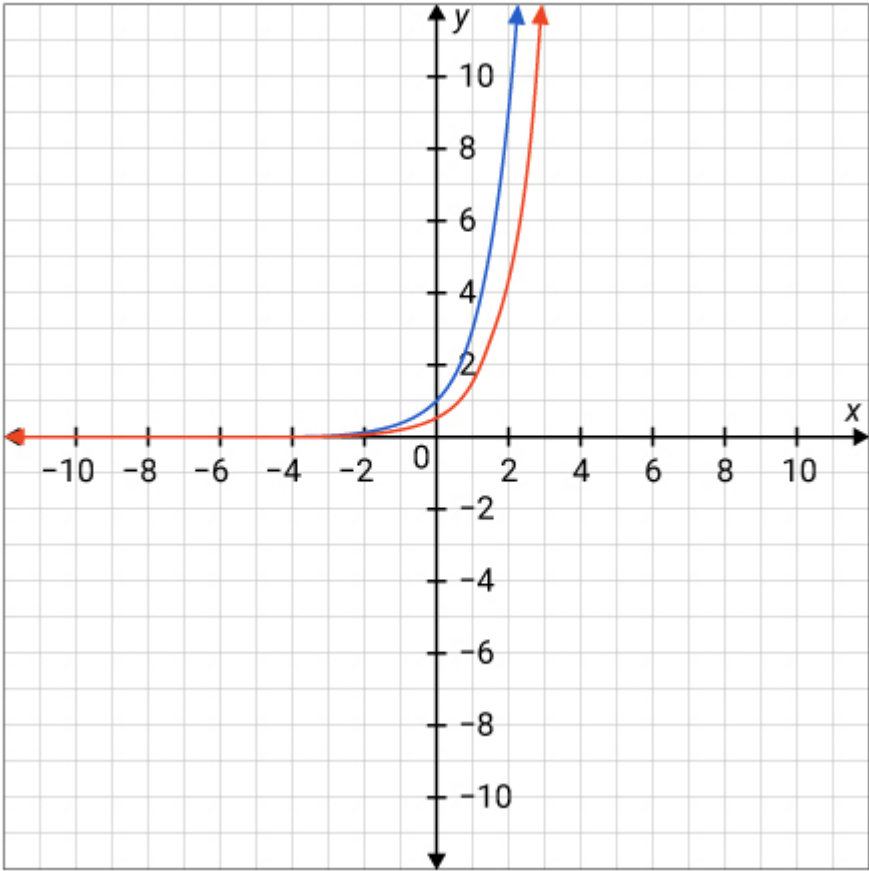
$$y = 0.5(3)^x - 2$$

?

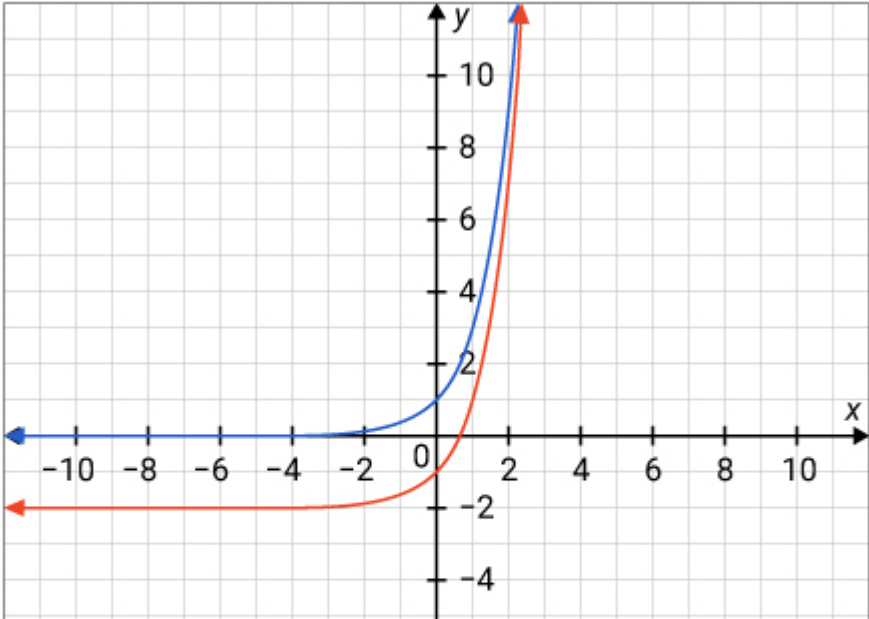


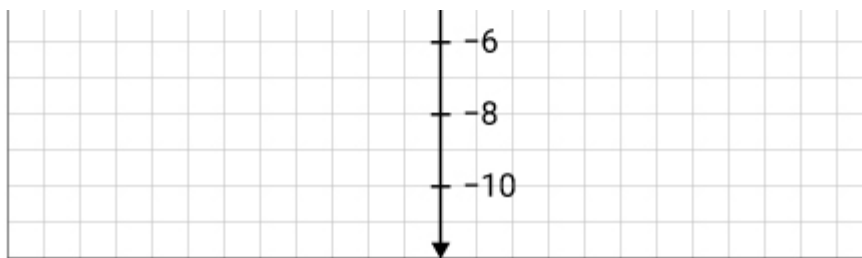


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QUESTION 13



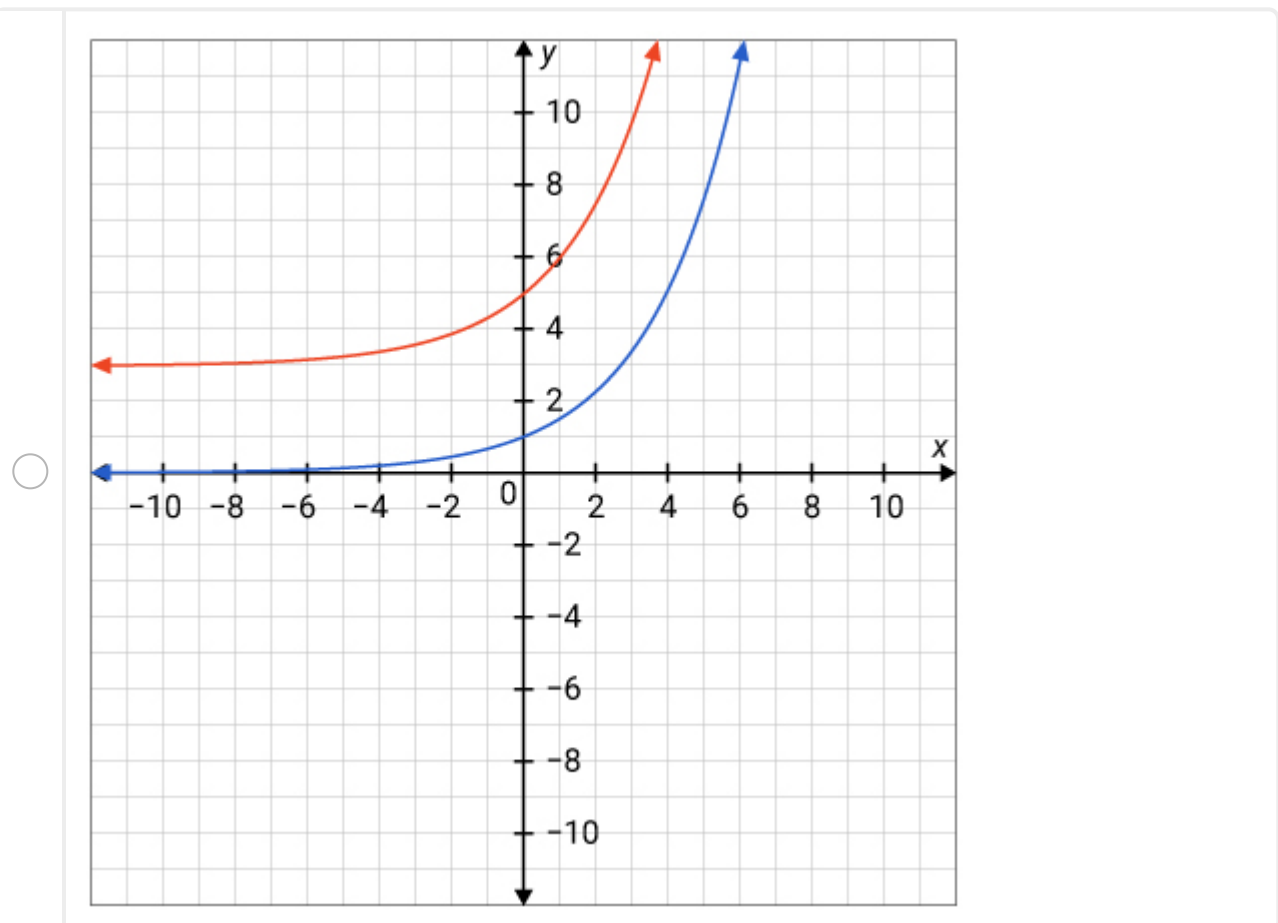
Which graph shows the parent function

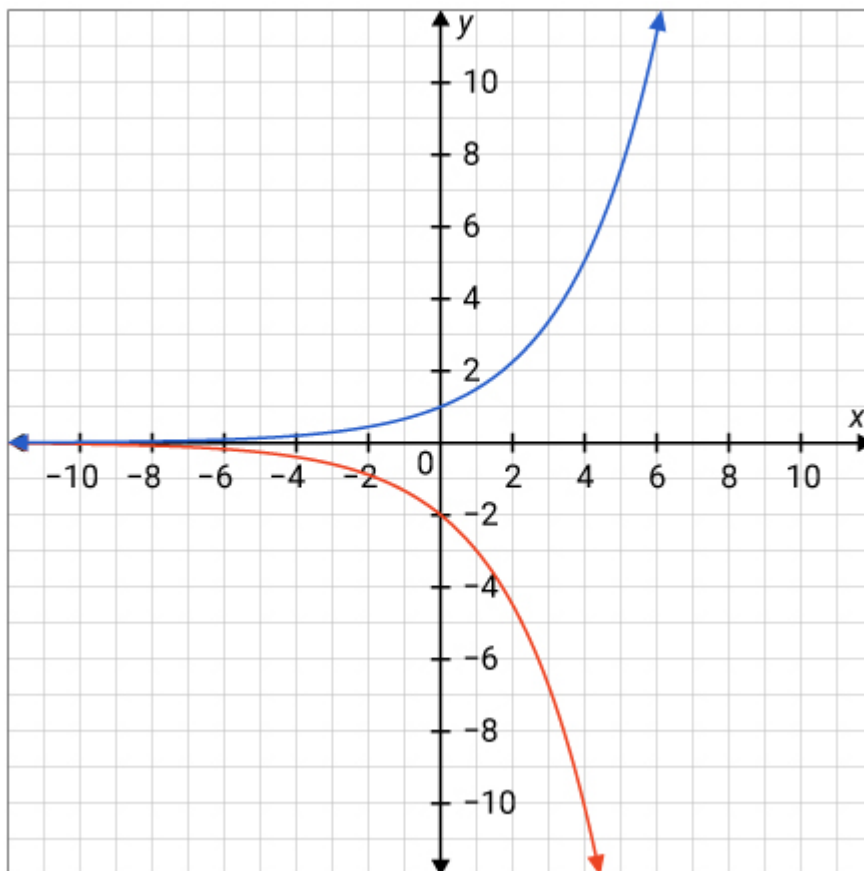
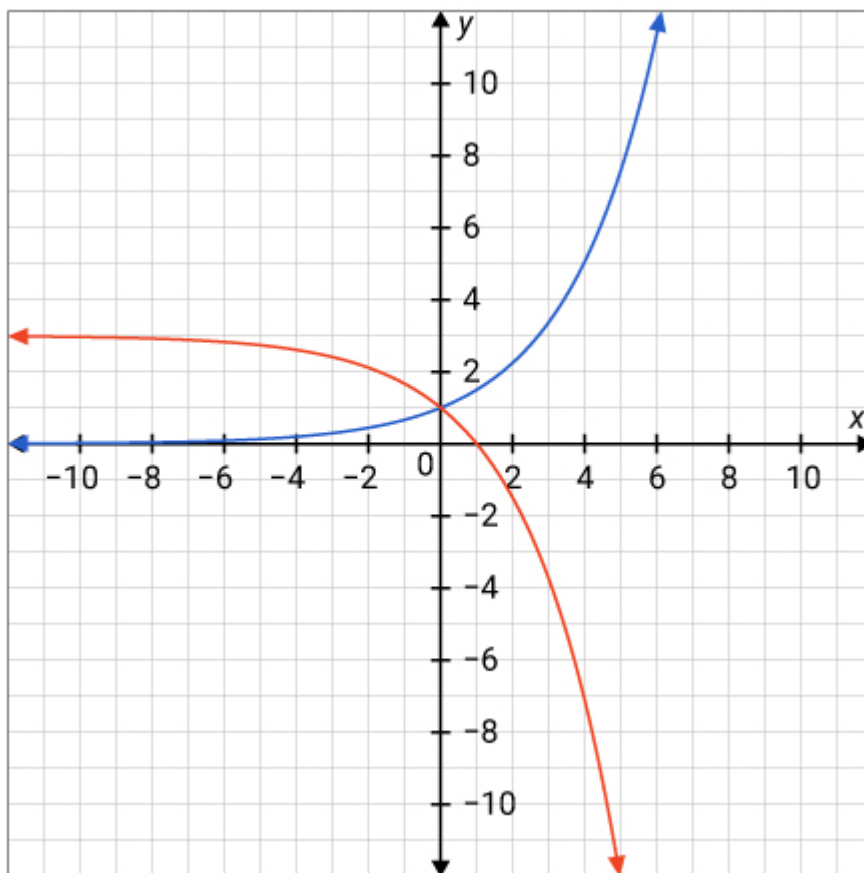
$$y = 1.5^x$$

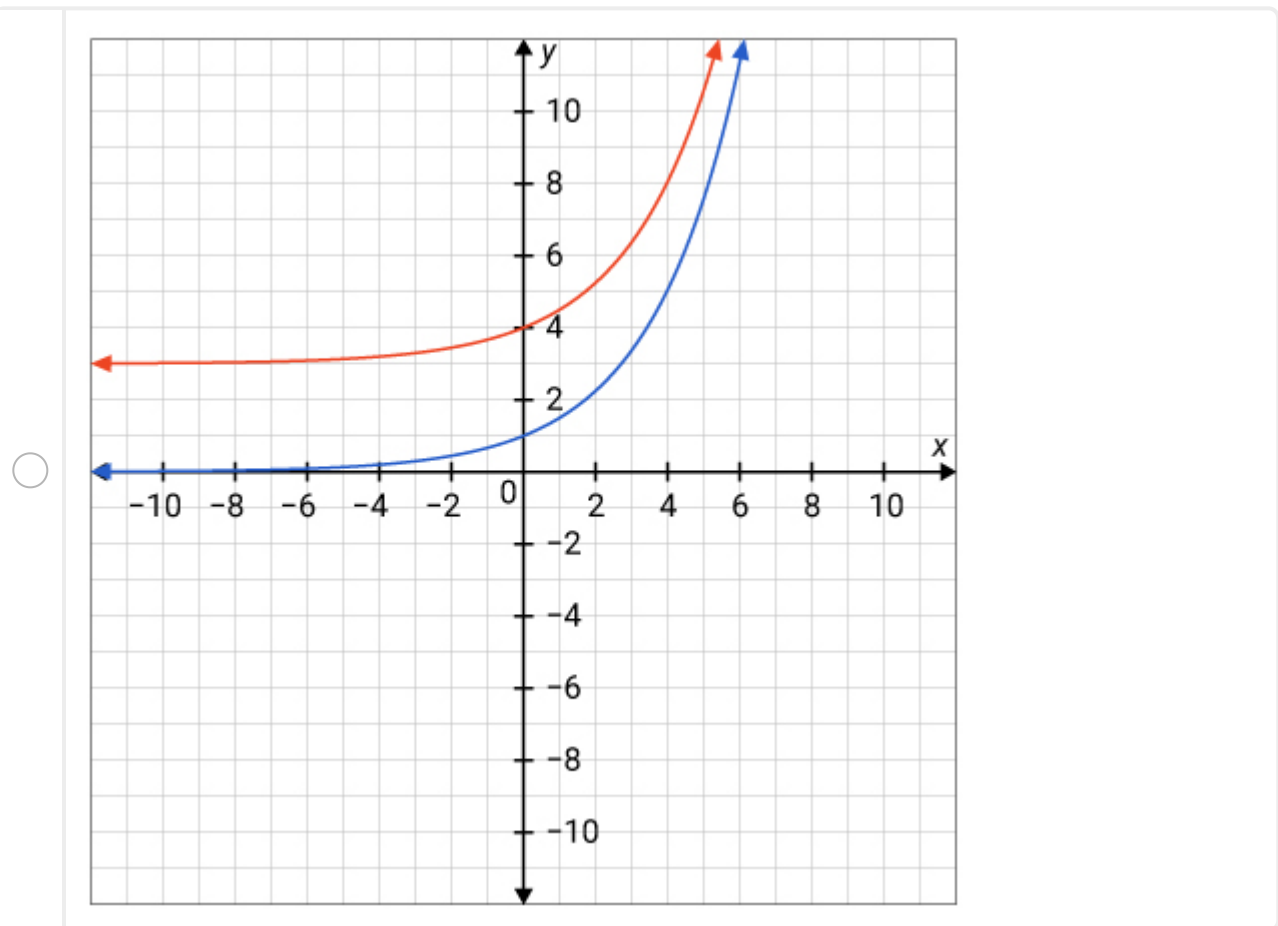
and the transformed function

$$y = -2(1.5)^x + 3$$

?







QUESTION 14



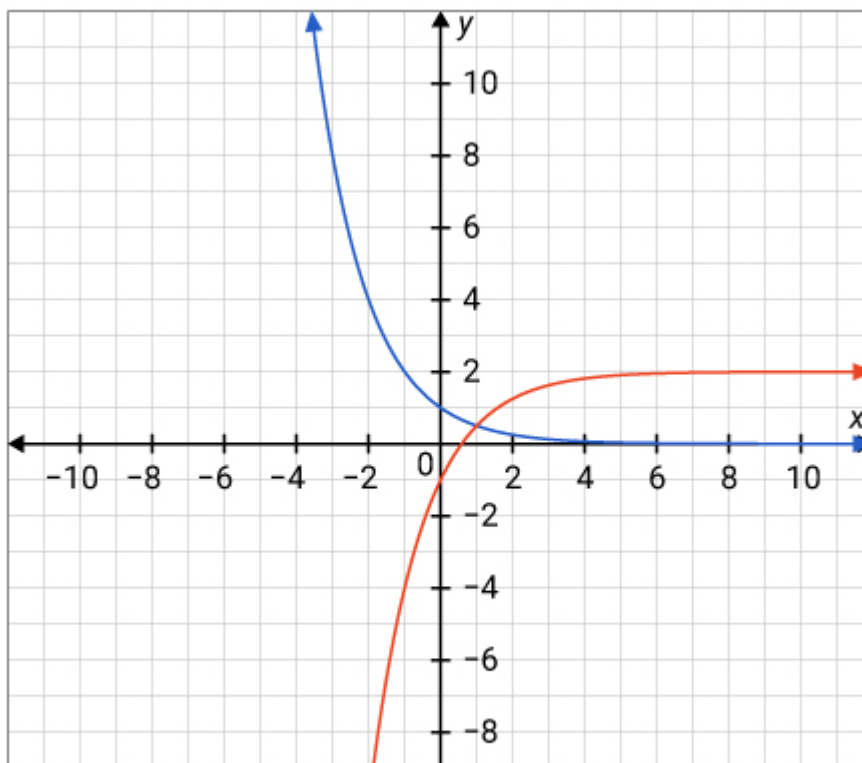
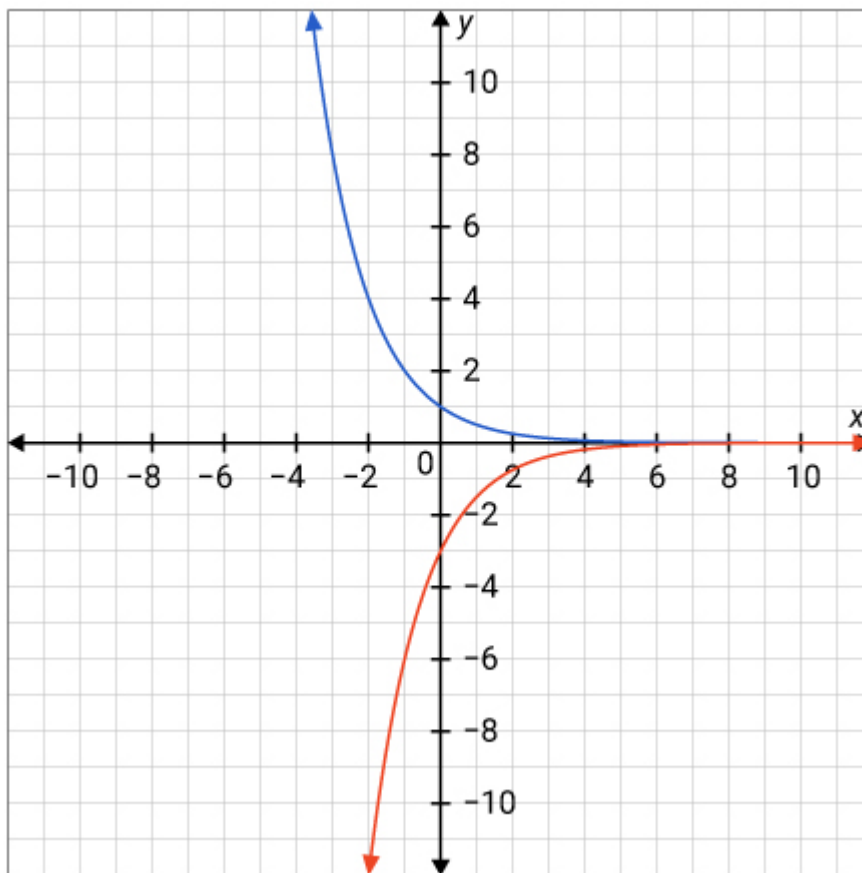
Which graph shows the parent function

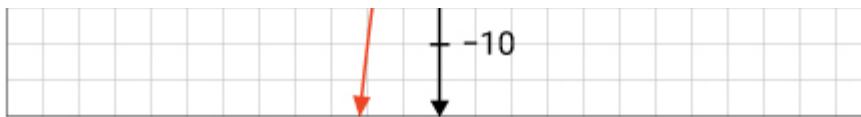
$$y = 0.5^x$$

and the transformed function

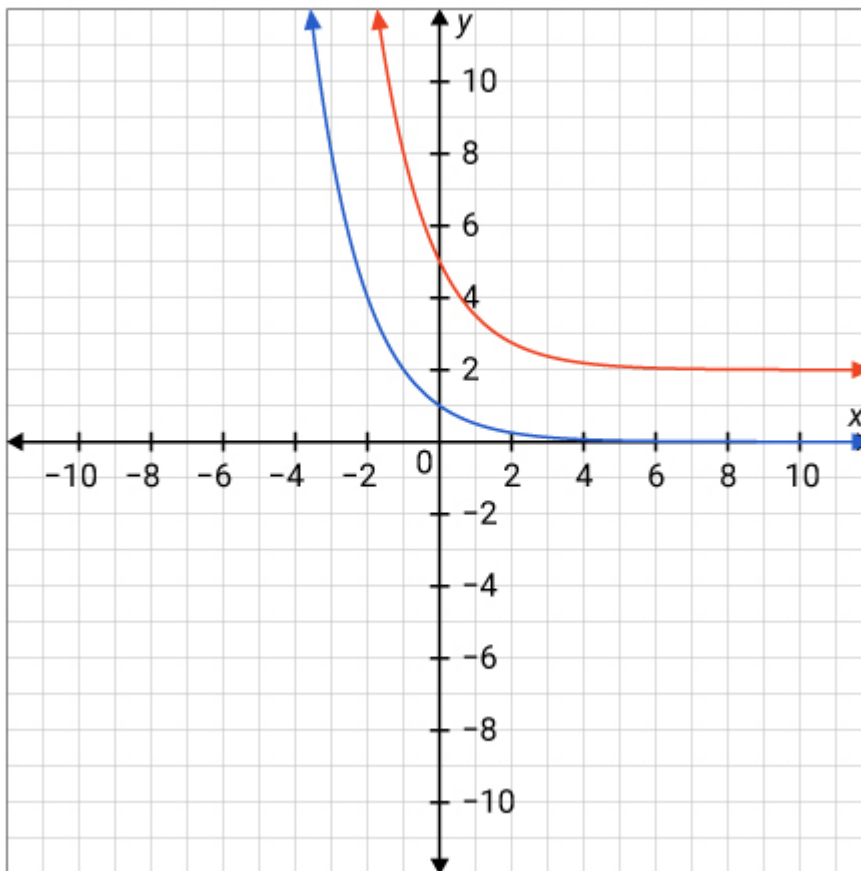
$$y = -3(0.5)^x + 2$$

?

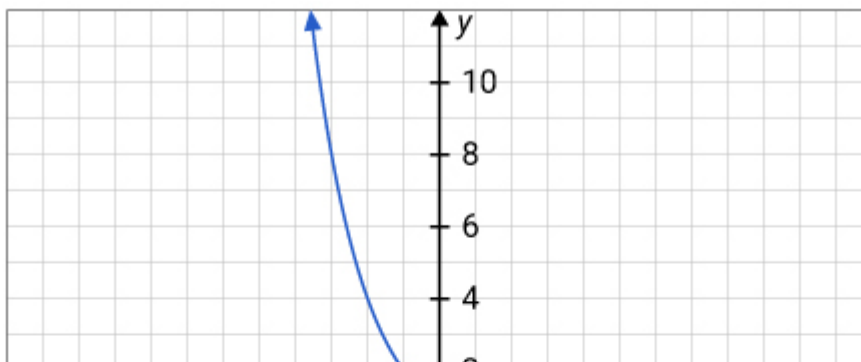


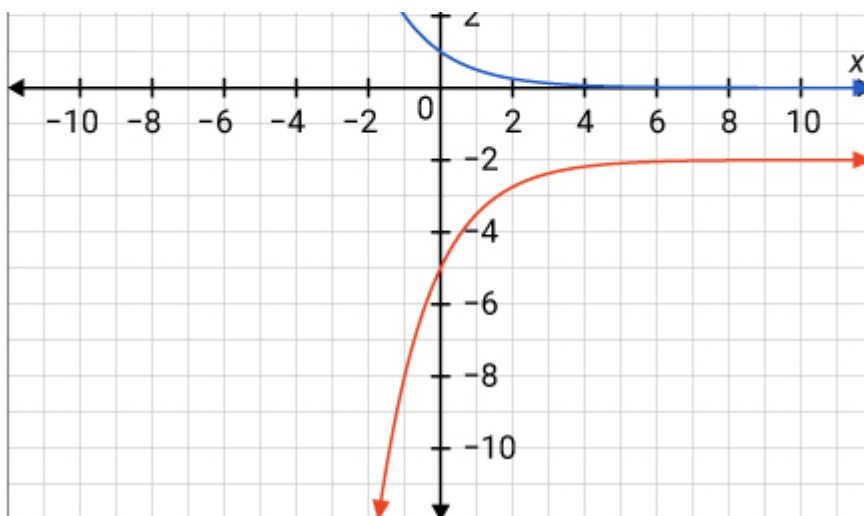


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QUESTION 15



Describe the function

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

, shown in the graph.

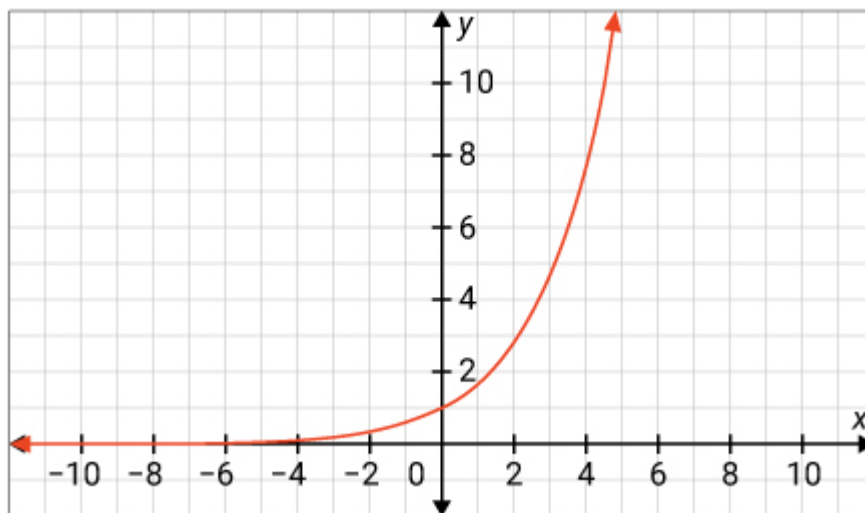
Select your answers from the drop-down menus.

The

y

-intercept is at

✓ ▼



The domain is ✓ ▼ and the range is

✓ ▼

The function shows

exponential growth ✓ ▼

QUESTION 16



Which of the following equations represents exponential decay?

$y = 7x$	$y = \frac{x}{7}$	$y = 7^x$	$y = \left(\frac{1}{7}\right)^x$
----------	-------------------	-----------	----------------------------------

Type the correct equation in the space provided.

$$y = \left(\frac{1}{7}\right)^x$$
 ✓

QUESTION 17



Which of the following equations represents exponential growth?

$y = 0.5^x$	$y = 0.5x$	$y = 4x$	$y = 4^x$
-------------	------------	----------	-----------

Type the correct equation in the space provided.

$$y = 4^x$$
 ✓

QUESTION 18



Which of the following equations represents exponential growth?

$y = \frac{2}{5}x$	$y = \left(\frac{2}{5}\right)^x$	$y = \frac{5}{2}x$	$y = \left(\frac{5}{2}\right)^x$
--------------------	----------------------------------	--------------------	----------------------------------

Type the correct equation in the space provided.

$$y = \left(\frac{5}{2}\right)^x$$



QUESTION 19



Which of the following equations represents exponential decay?

$y = 3.5x$	$y = (3.5)^x$	$y = 3^x$	$y = \left(\frac{1}{3}\right)^x$
------------	---------------	-----------	----------------------------------

Type the correct equation in the space provided.

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



QUESTION 20



Which of the following equations represents exponential growth?

$y = 0.1x$	$y = 1.5x$	$y = (1.5)^x$	$y = (0$
------------	------------	---------------	----------

Type the correct equation in the space provided.

$y =$

$(1.5)^x$



QUESTION 21



Describe the function

$$y = 6^x$$

, shown in the graph.

Select your answers from the drop-down menus.

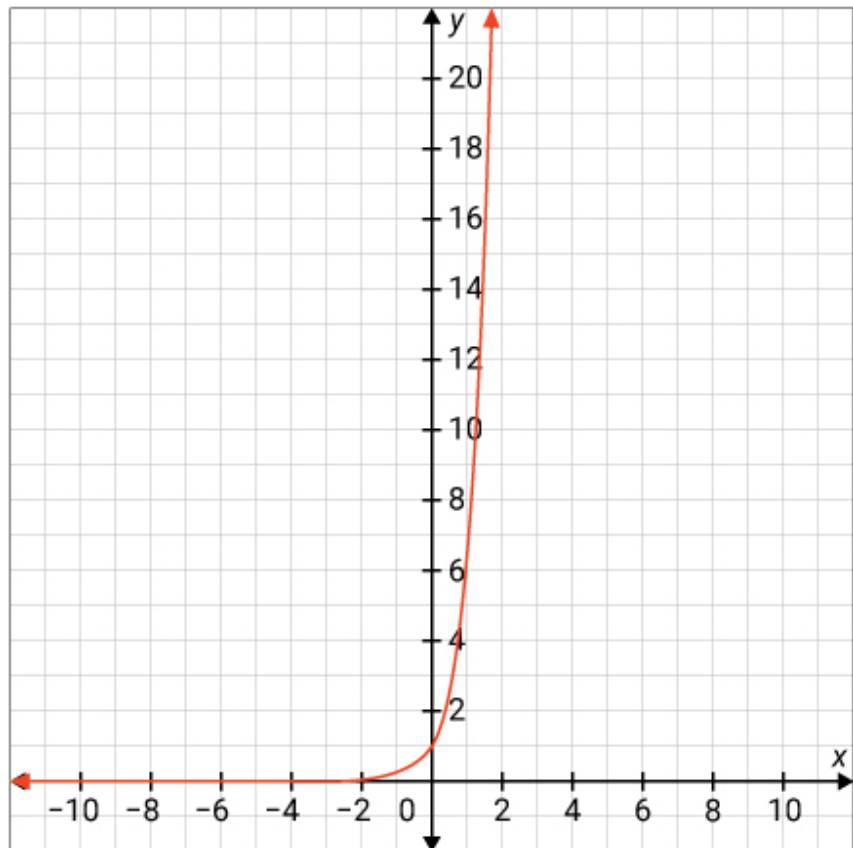
The

y

-intercept is at

$(0, 1)$ ✓ ▼

The domain is



all real numbers ✓ ▼

and the range is

all positive real numbers ✓ ▼

The function shows exponential growth ✓ ▼.

QUESTION 22



Describe the function

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

, shown in the graph.

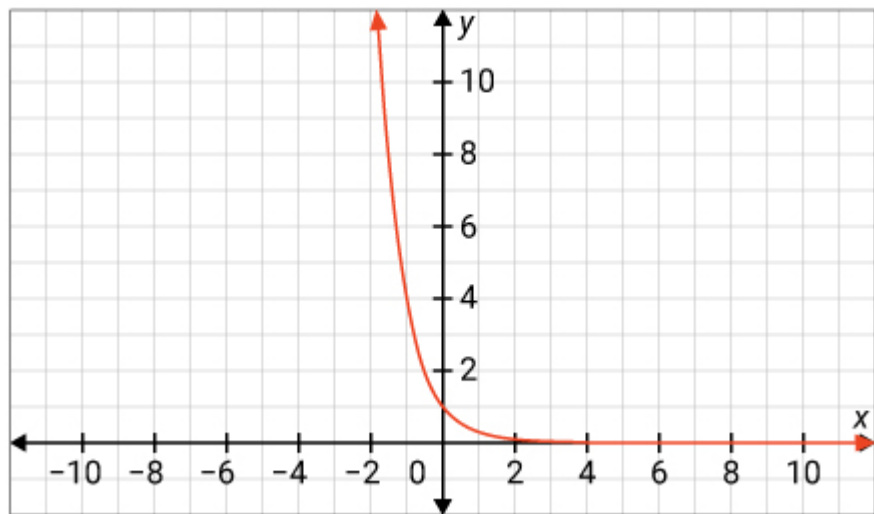
Select your answers from the drop-down menus.

The

y

-intercept is at

(0, 1) ✓ ▼.



The domain is all real numbers ✓ ▼ and the range is

all positive real numbers ✓ ▼.

The function shows exponential decay ✓ ▼.

QUESTION 23



Describe the function

$$y = 2^x$$

, shown in the graph.

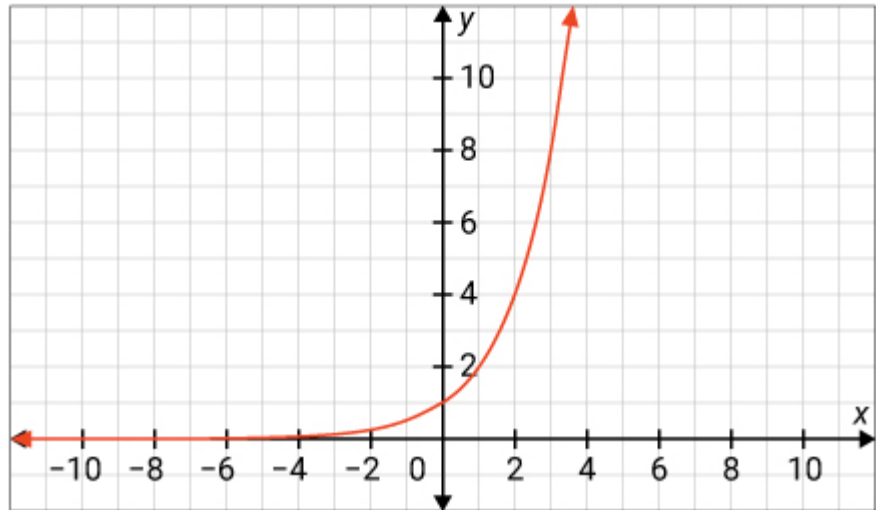
Select your answers from the drop-down menus.

The

y

-intercept is at

(0, 1) ✓ ▼



The domain is all real numbers ✓ ▼ and the range is

all positive real numbers ✓ ▼

The function shows exponential growth ✓ ▼

QUESTION 24



Describe the function

$$y = \left(\frac{9}{4}\right)^x$$

, shown in the graph.

Select your answers from the drop-down menus.

The

y

-intercept is at

$(0, 1)$ ✓ ▼

The domain is

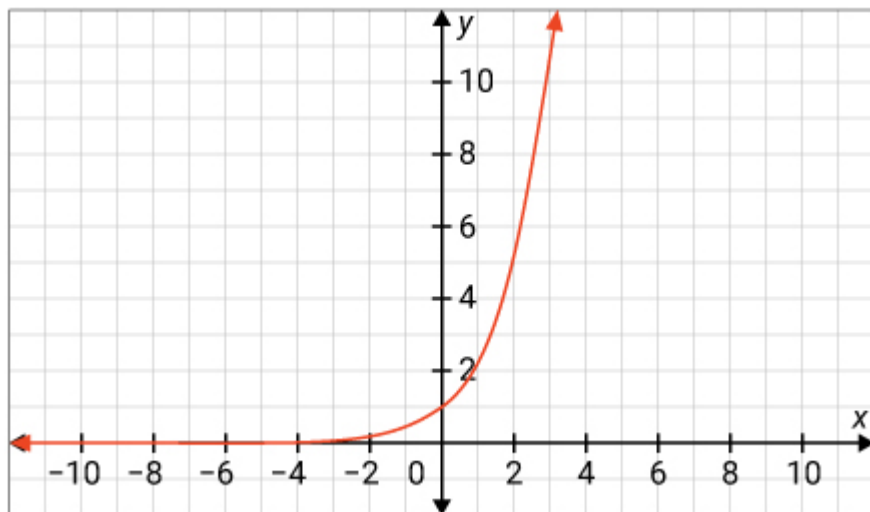
all real numbers ✓ ▼

and the range is

all positive real numbers ✓ ▼

The function shows

exponential growth ✓ ▼



QUESTION 25



Describe the function

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

, shown in the graph.

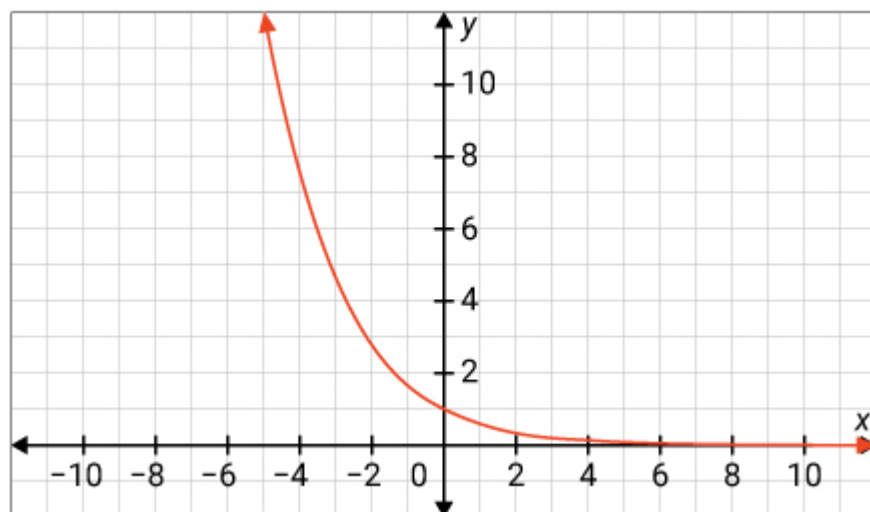
Select your answers from the drop-down menus.

The

y

-intercept is at

$(0, 1)$ ✓ ▼



The domain is and the range is

.

The function shows .

QUESTION 26



Describe the function

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

, shown in the graph.

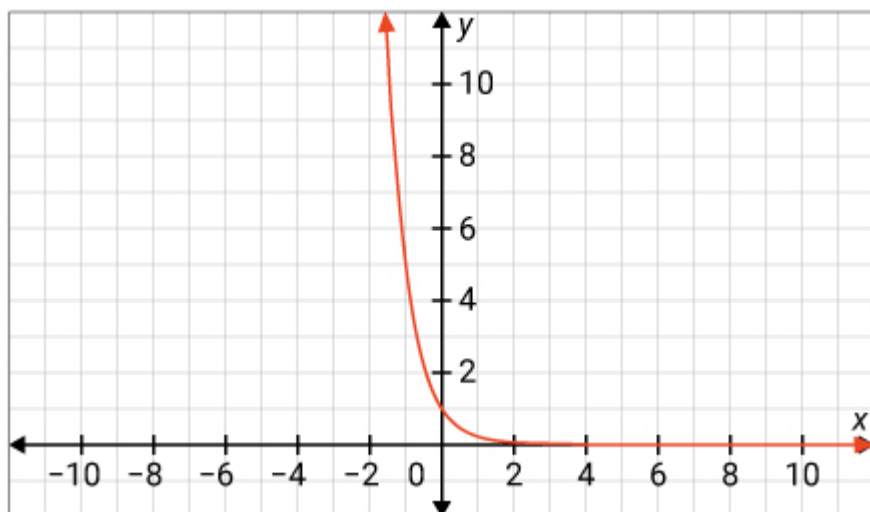
Select your answers from the drop-down menus.

The

y

-intercept is at

.



The domain is and the range is

.

The function shows .

QUESTION 27



Describe the function

$$y = \left(\frac{3}{8}\right)^x$$

, shown in the graph.

Select your answers from the drop-down menus.

The

y

-intercept is at

(0, 1) ✓ ▼



The domain is all real numbers ✓ ▼ and the range is

all positive real numbers ✓ ▼

The function shows exponential decay ✓ ▼

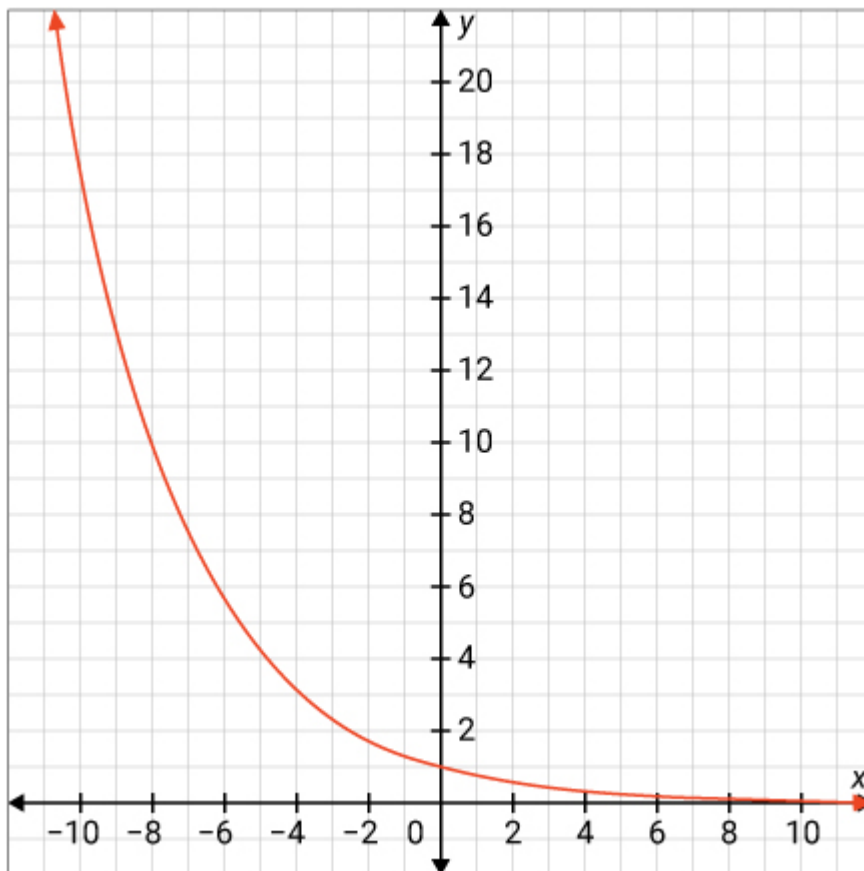
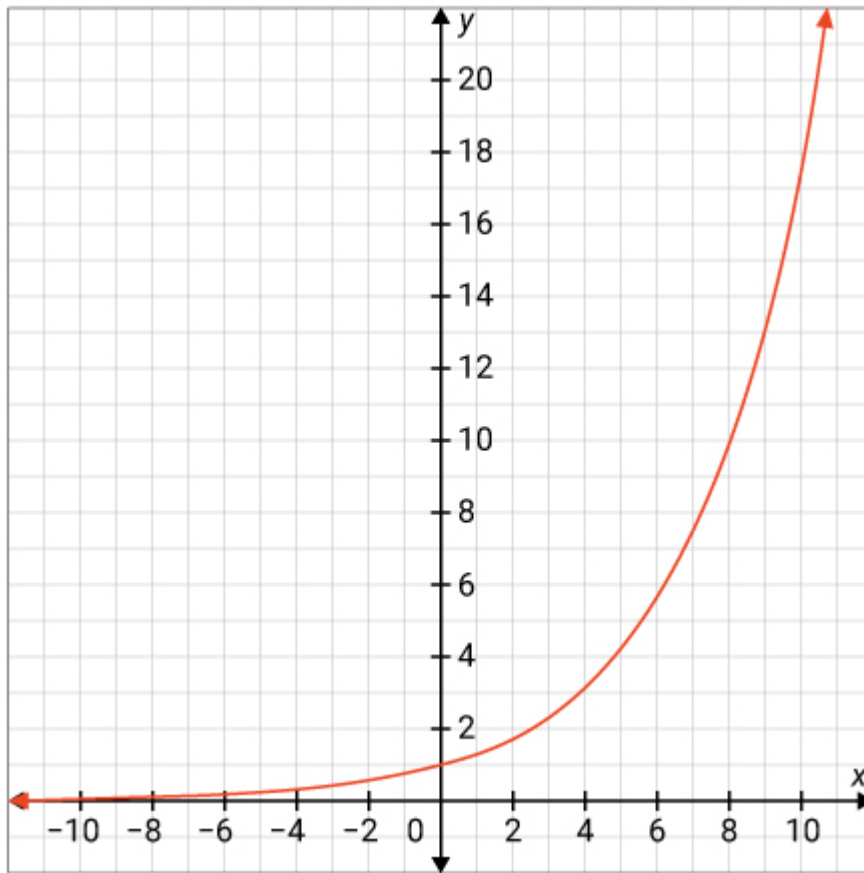
QUESTION 28

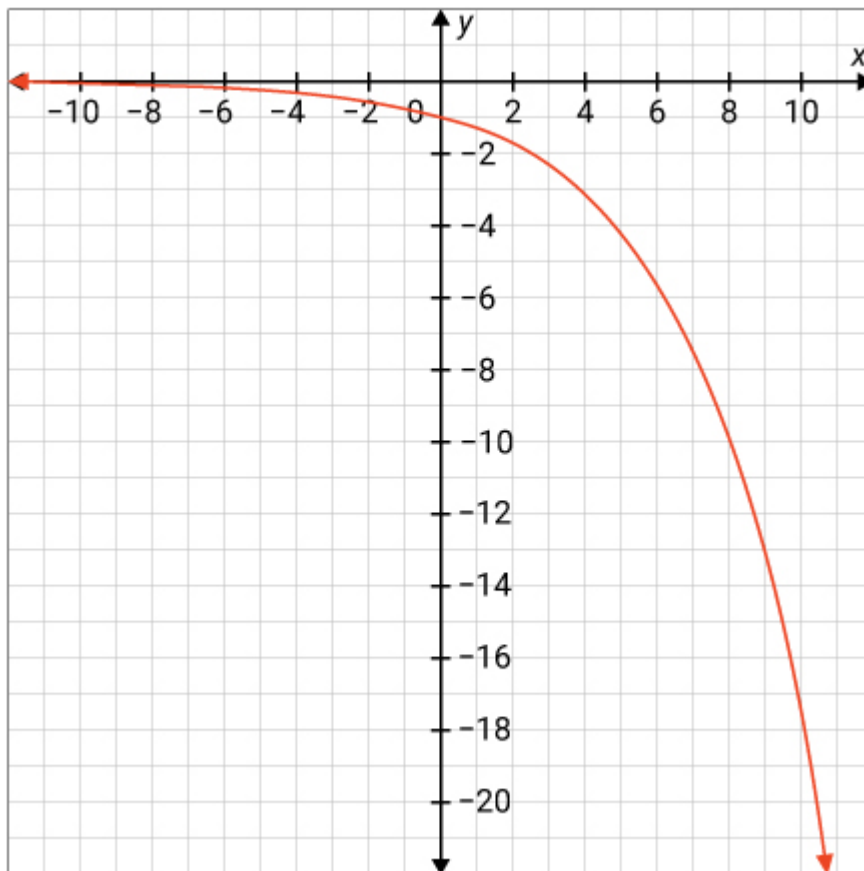
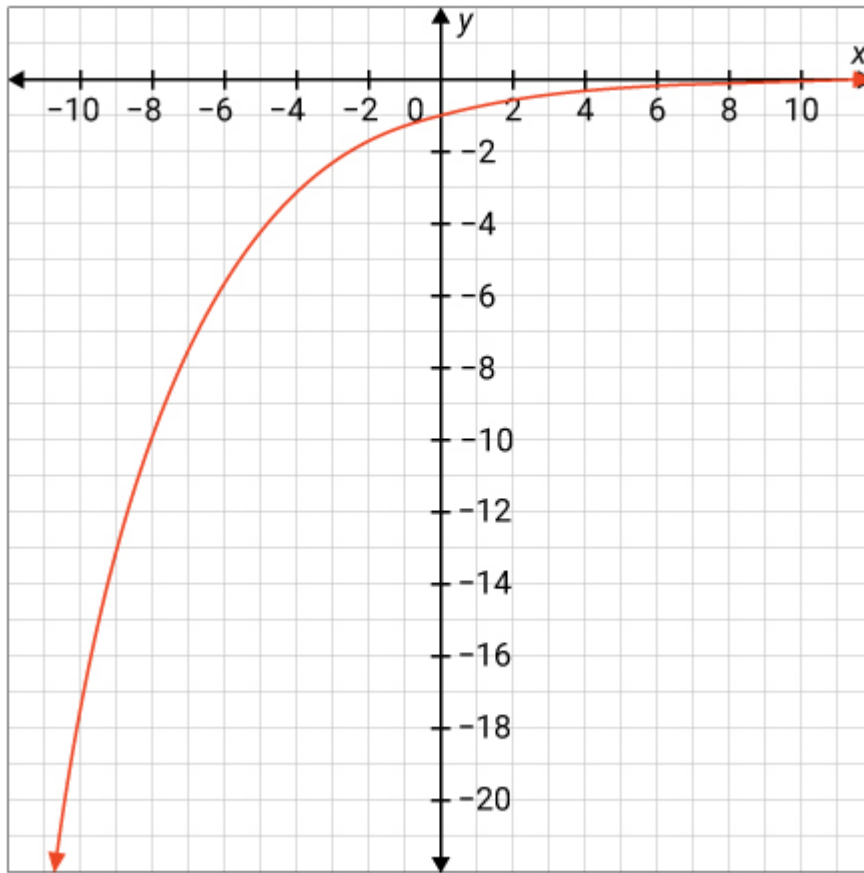


Which graph represents

$$y = \left(\frac{3}{4}\right)^x$$

?





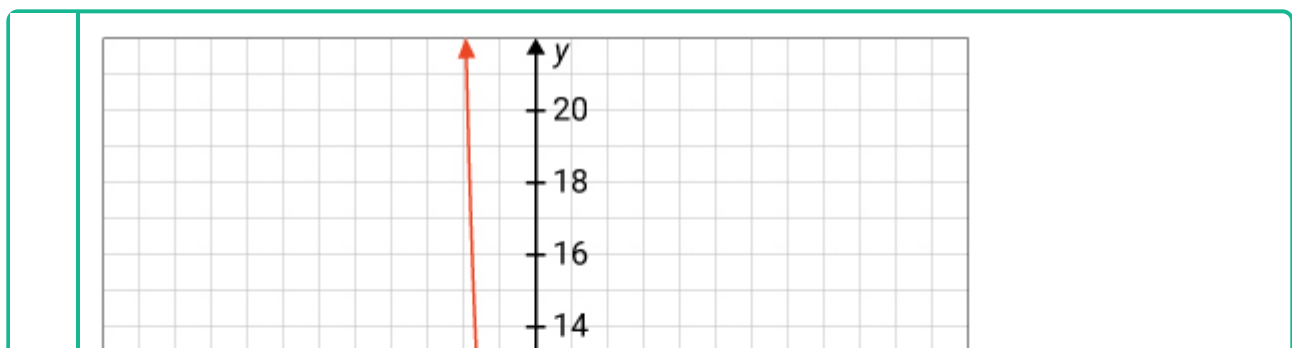
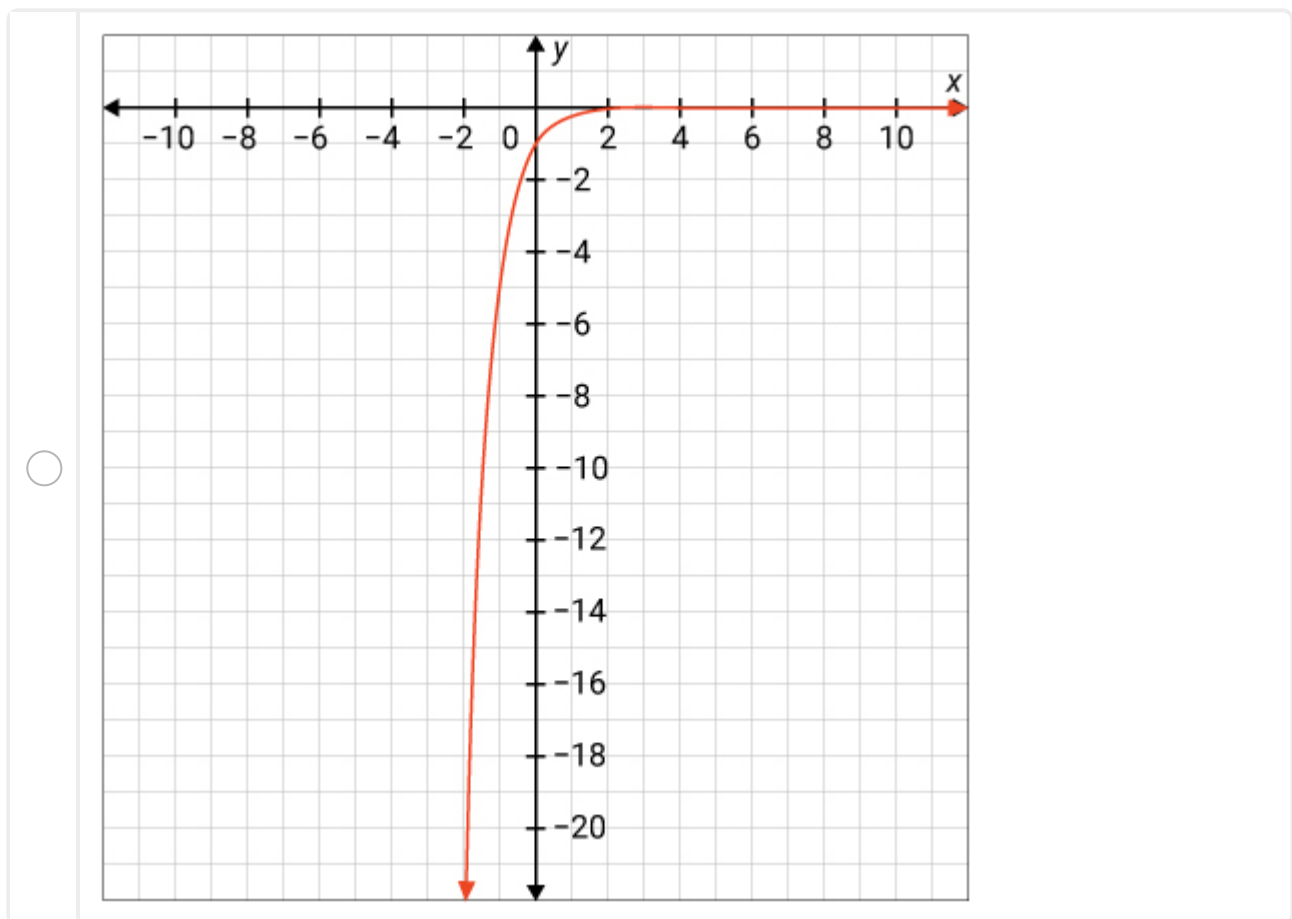
QUESTION 29

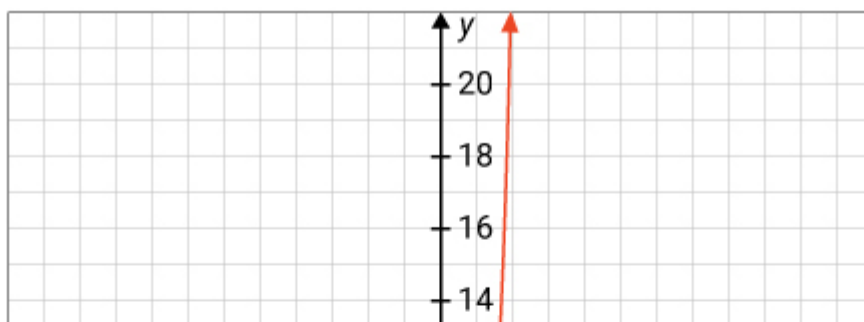
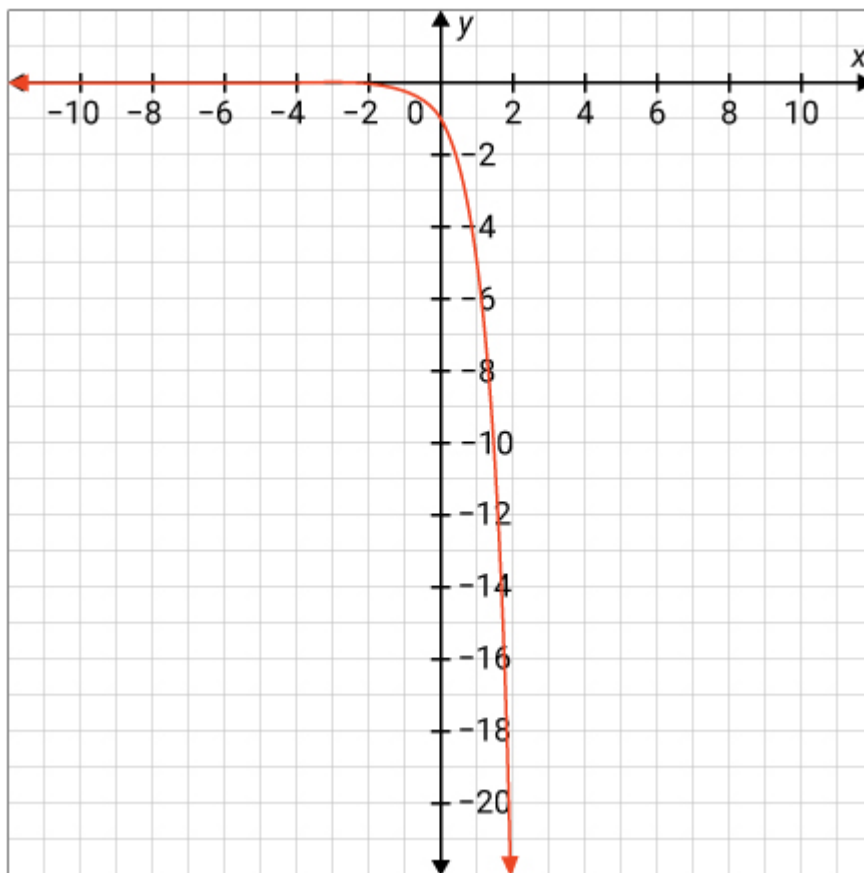


Which graph represents

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

?







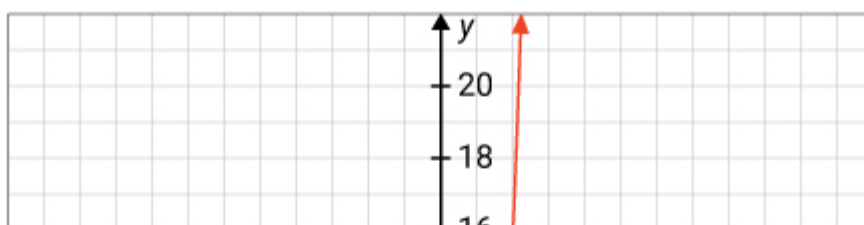
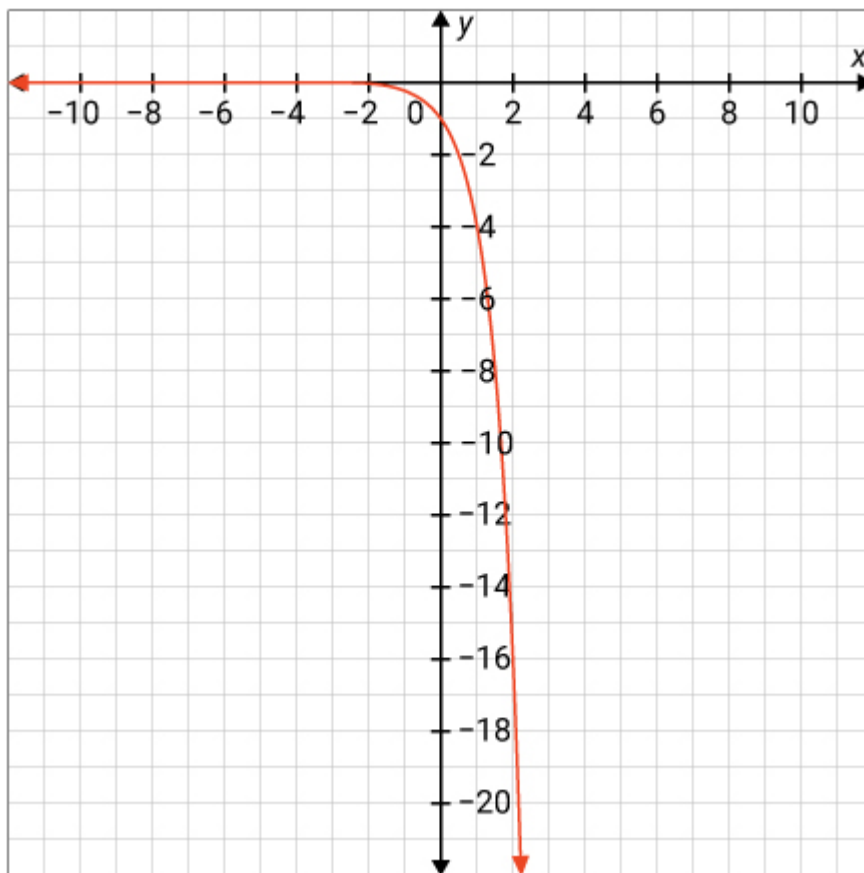
QUESTION 30

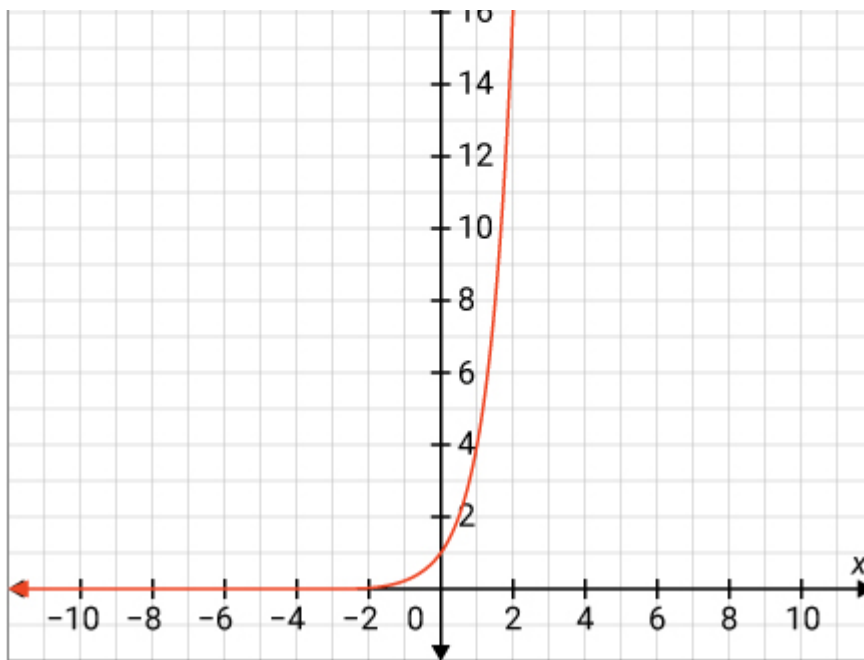


Which graph represents

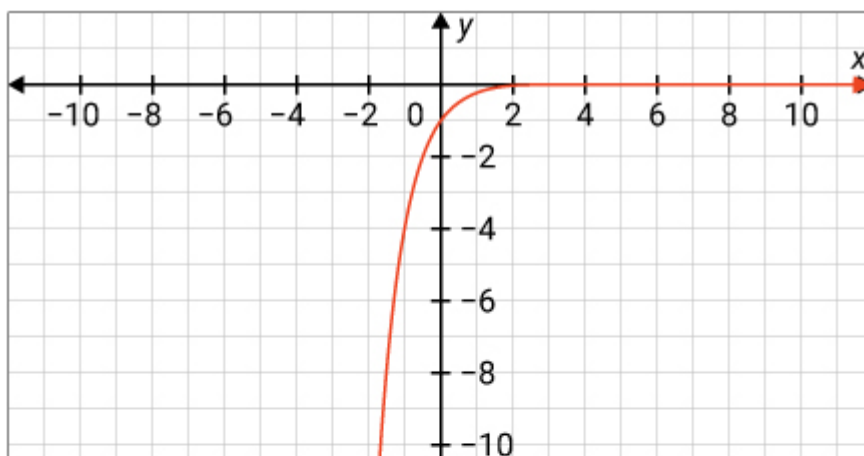
$$y = 4^x$$

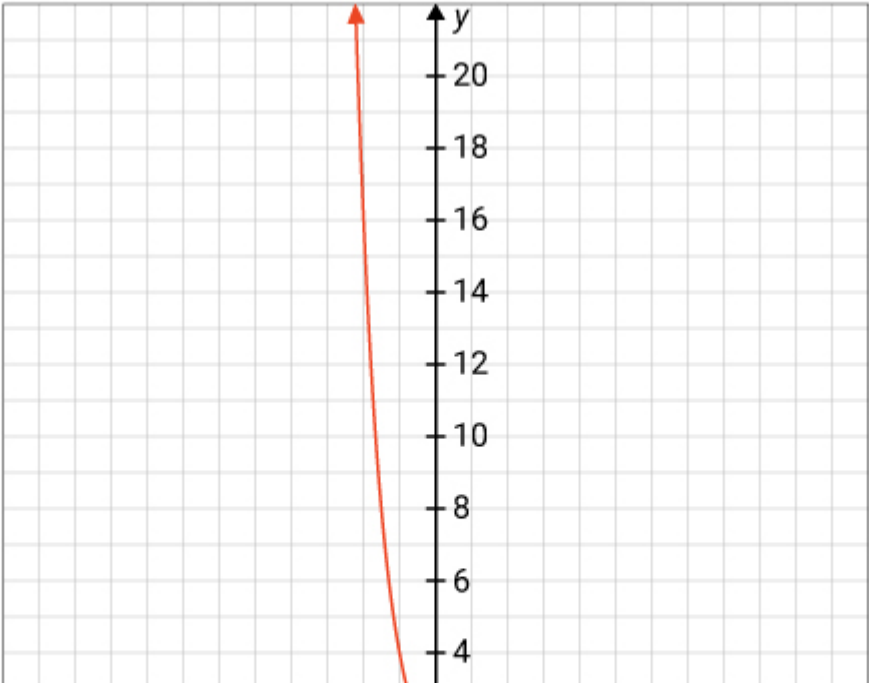
?

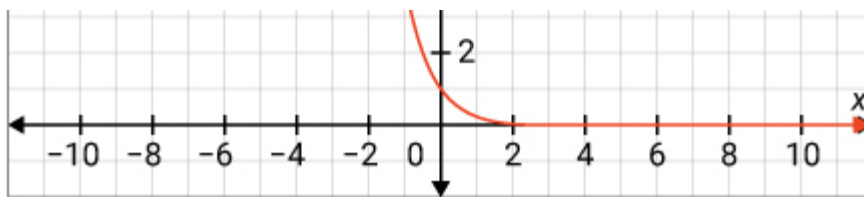




○







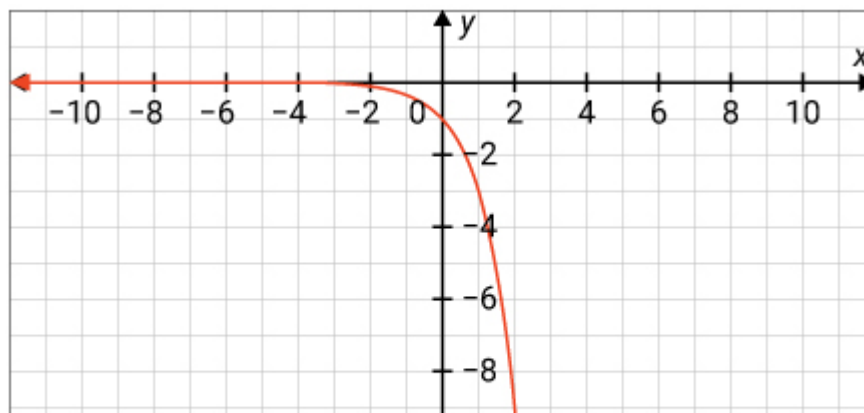
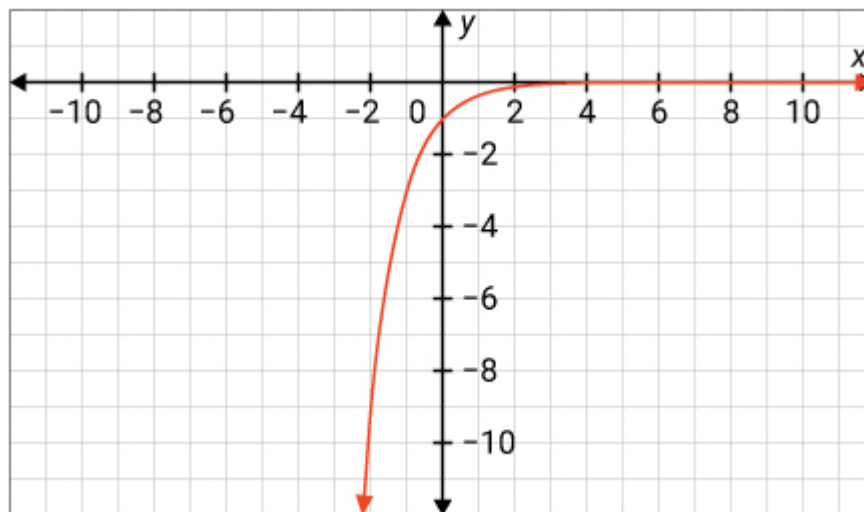
QUESTION 31

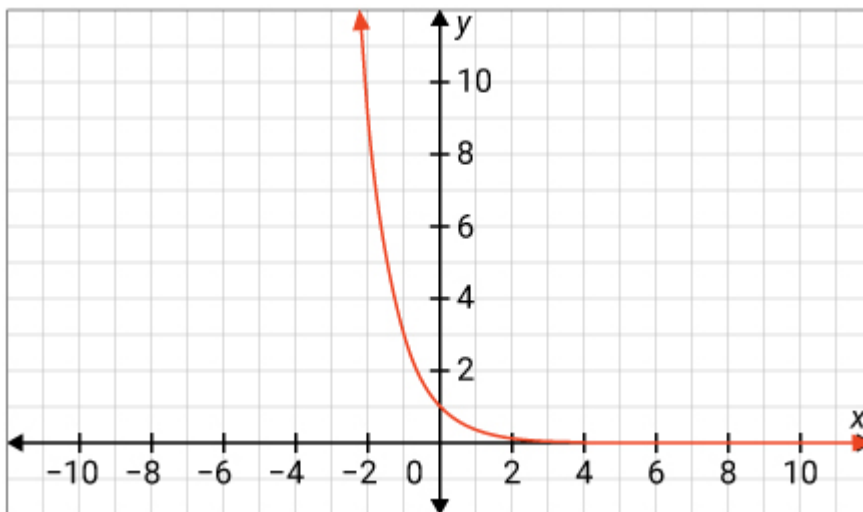
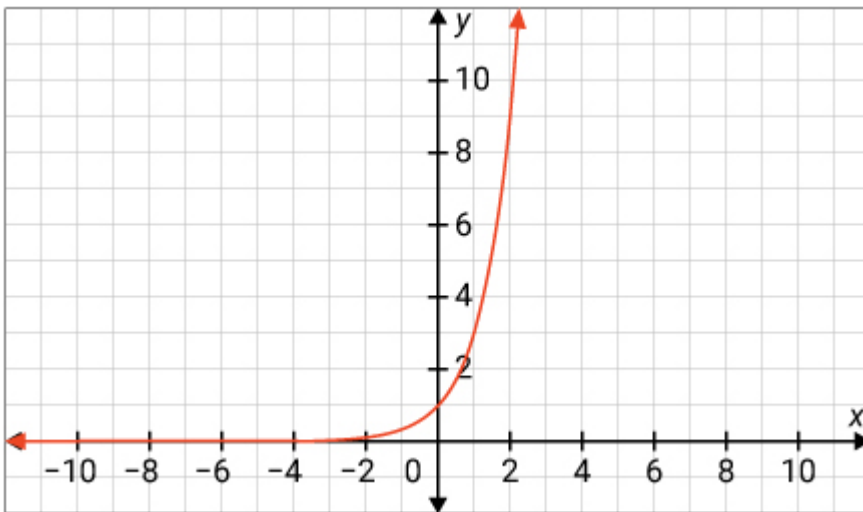


Which graph represents

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

?





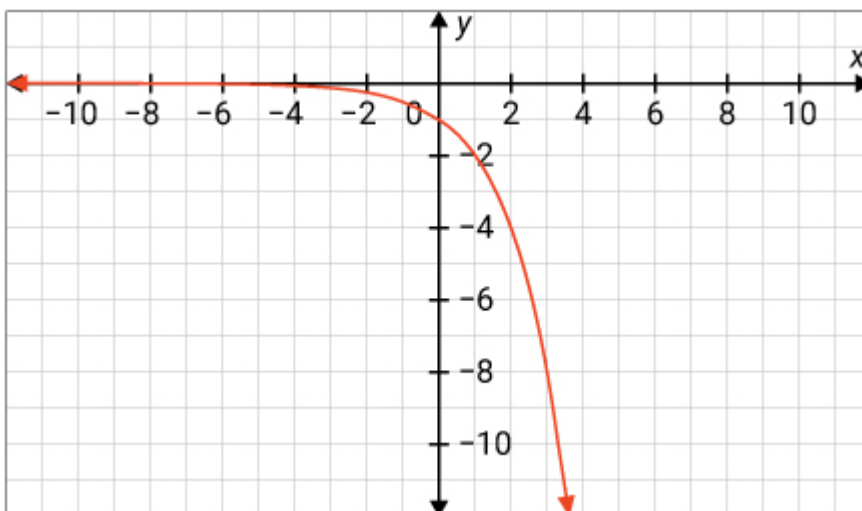
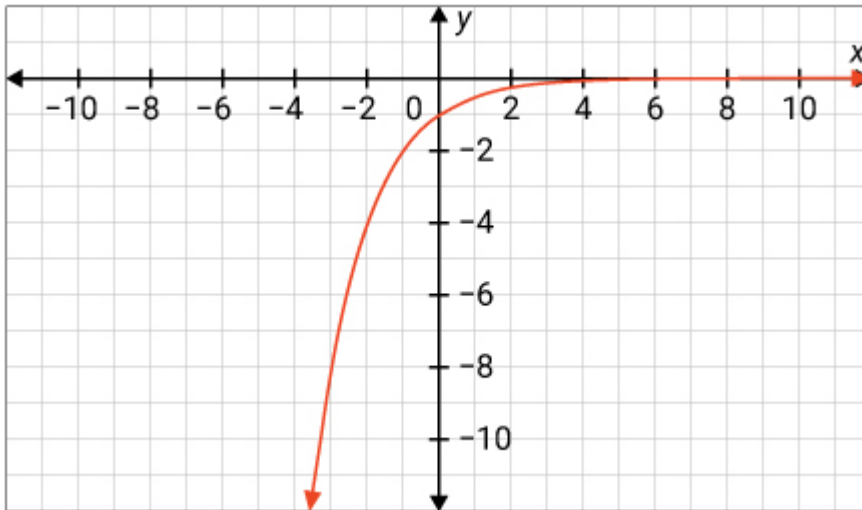
QUESTION 32

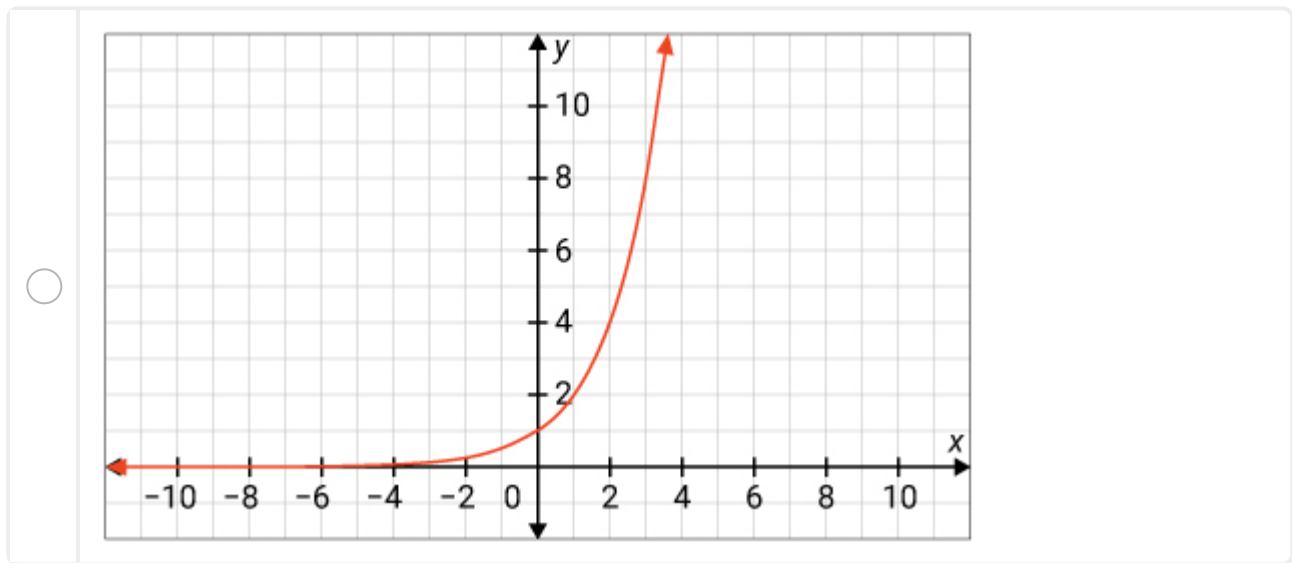


Which graph represents

$$y = \left(\frac{1}{2}\right)^x$$

?





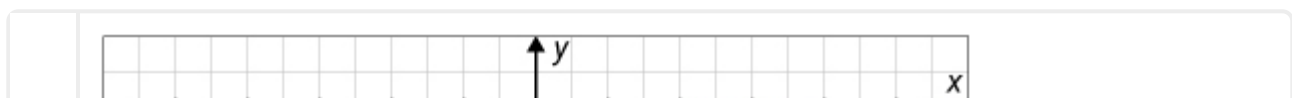
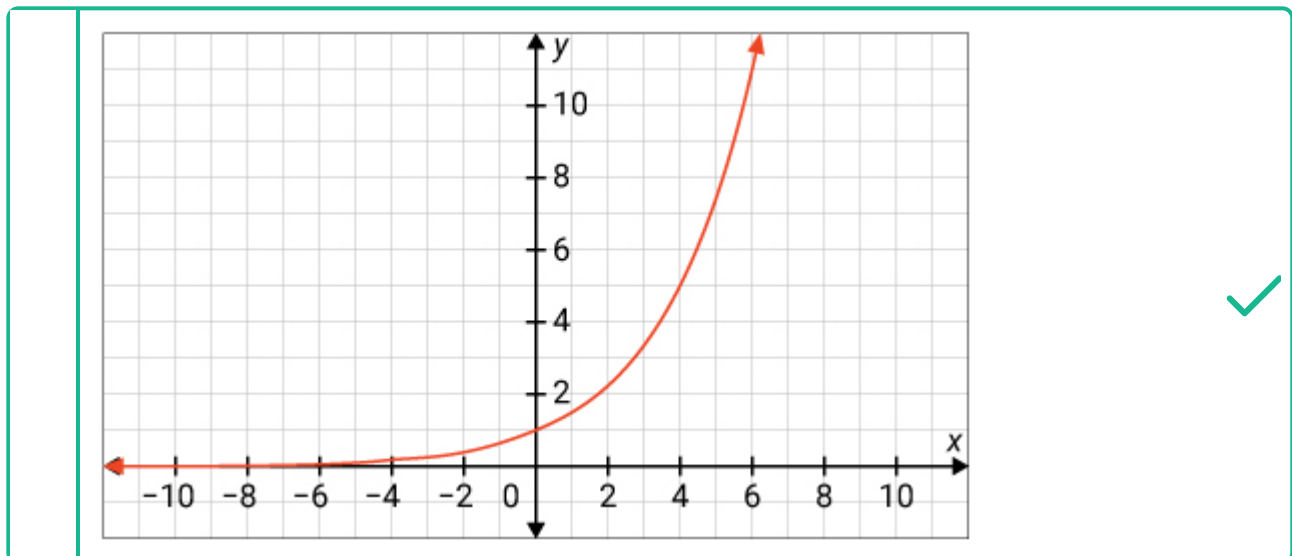
QUESTION 33

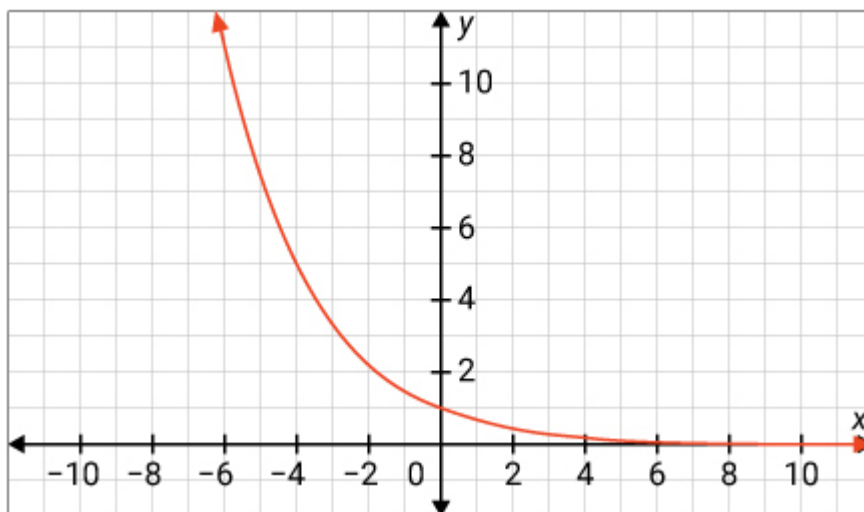
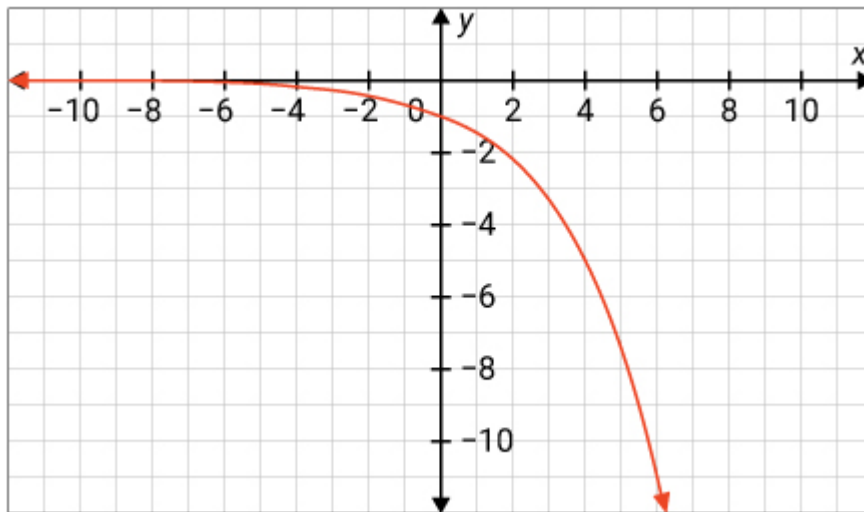
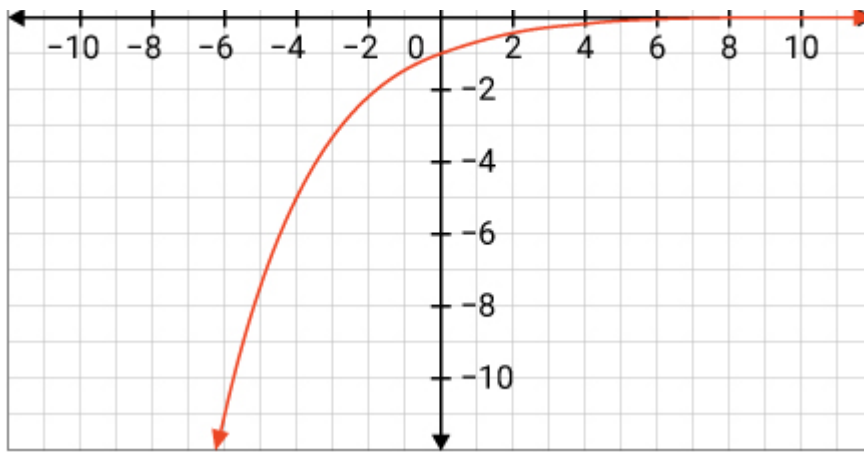


Which graph represents

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

?





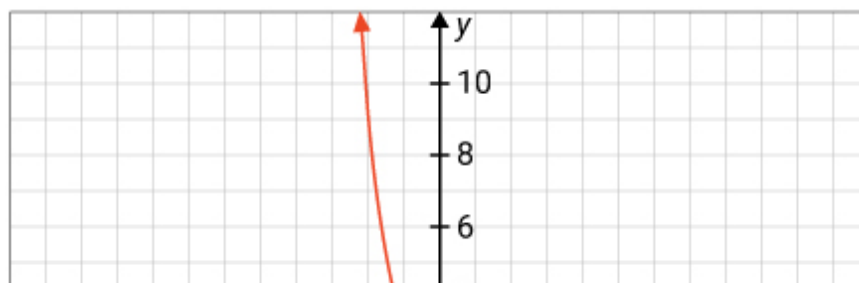
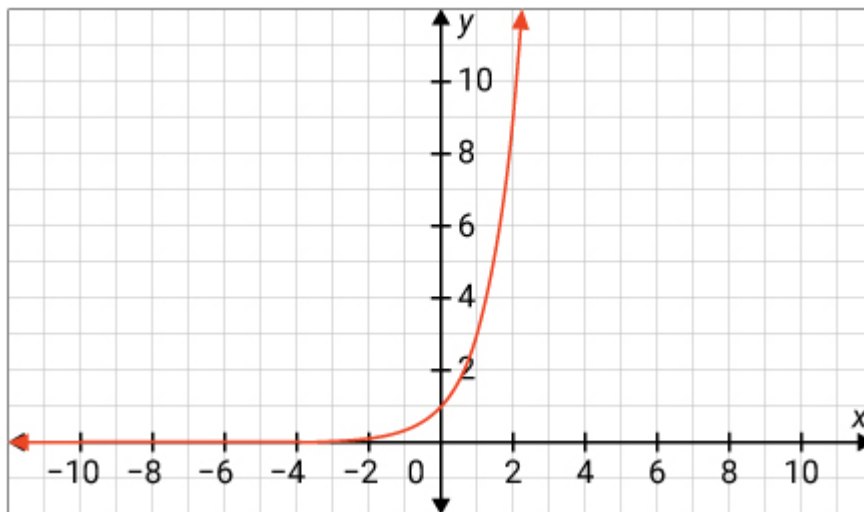
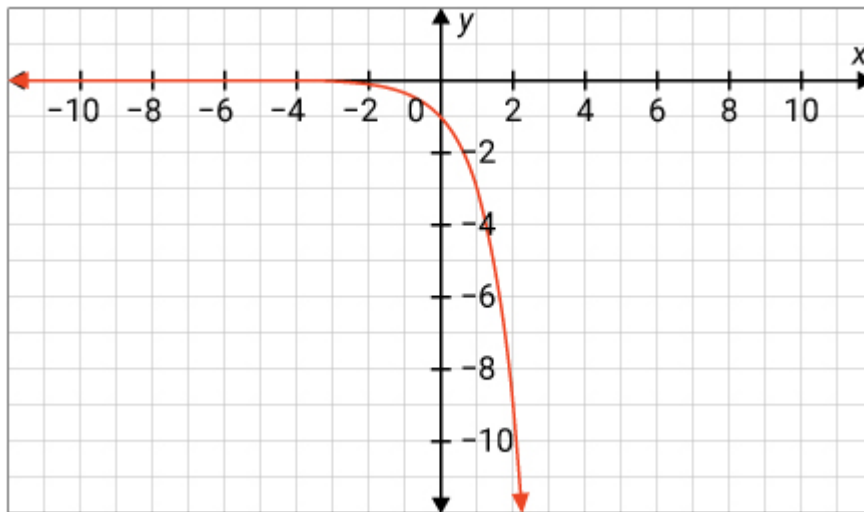
QUESTION 34

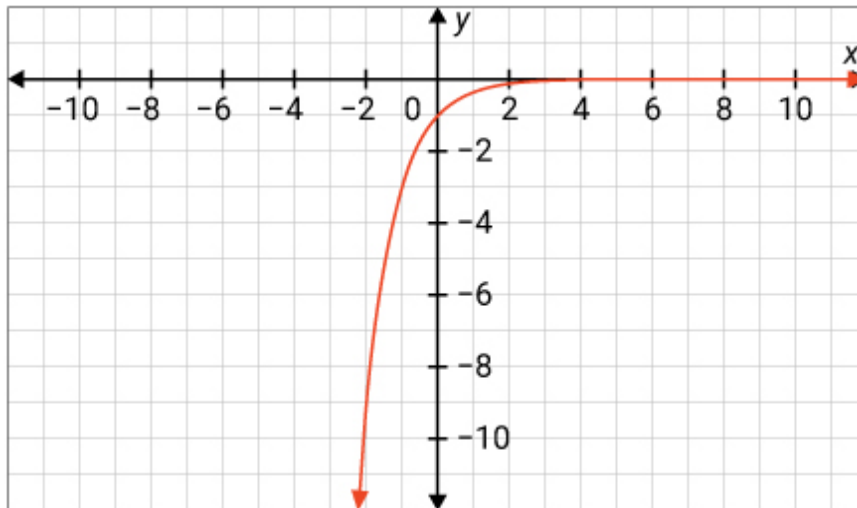
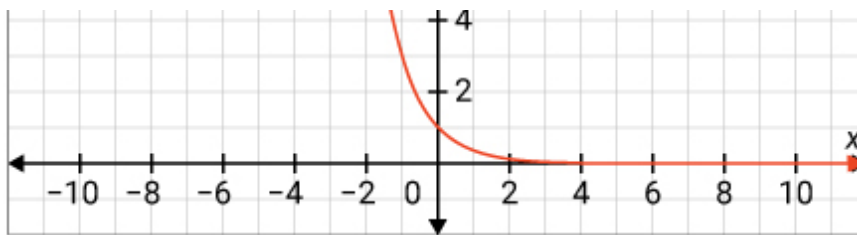


Which graph represents

$$y = 3^x$$

?





QUESTION 35



Which graph represents

$$y = \left(\frac{5}{2}\right)^x$$

?

