

03 - Lesson 2, Exam 3

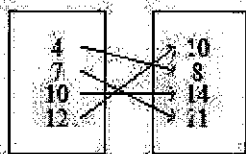
Part 1 of 1 -

25.0/ 100.0 Points

Question 1 of 20

5.0/ 5.0 Points

Is the relation a function?



- ☒ A. yes
- ☐ B. no

Question 2 of 20

5.0/ 5.0 Points

The table shows the median home prices in Florida. What is the equation of a trend line that models a relationship between time and home prices? Use the equation to predict the median home price in 2020.

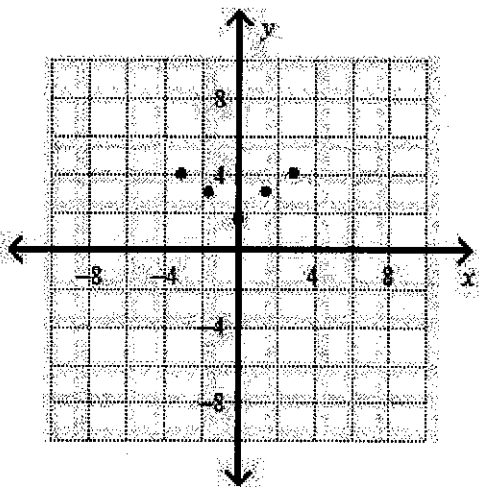
Year	1940	1950	1960	1970	1980	1990	2000
Median Price(\$)	\$20,200	\$39,900	\$50,400	\$62,800	\$89,100	\$98,700	\$119,000

- ☐ A. $y = 1646.67x + 20,200$; \$119,000
- ☐ B. $y = 49.4x + 20,200$; \$151,900
- ☐ C. $y = 49.4x + 20,200$; \$119,000
- ☒ D. $y = 1646.67x + 20,200$; \$151,900

Question 3 of 20

0.0/ 5.0 Points

Find the domain and range of the relation.



- ☒ A.
domain: $\{-3, -1.5, 1.5, 3\}$; range: $\{4, 3, 1.5\}$
- ☐ B.
domain: $\{-3, -1.5, 0, 1.5, 3\}$; range: $\{4, 3, 1.5\}$
- ☐ C.
domain: $\{4, 3, 1.5\}$; range: $\{-3, -1.5, 1.5, 3\}$
- ☐ D.
domain: $\{4, 3, 1.5\}$; range: $\{-3, -1.5, 0, 1.5, 3\}$

Question 4 of 20

0.0/ 5.0 Points

What is the equation of the given line in standard form? Use integer coefficients.

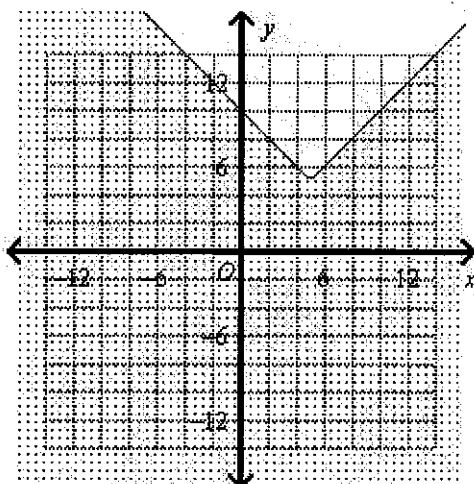
$$y = -6.9x + 5.1$$

- ☐ A. $-69x + 10y = 51$
- ☒ B. $69x + 10y = -51$
- ☐ C. $69x + 10y = 51$
- ☐ D. $-69x + 10y = -51$

Question 5 of 20

0.0/ 5.0 Points

Write an inequality for the graph.



- ☐ A. $y \leq |x - 5| - 5$
☐ B. $y \leq |x - 5| + 5$
☒ C. $y \leq |x + 5| + 5$
☐ D. $y \leq |x - 5| + 5$

Question 6 of 20

0.0/ 5.0 Points

What is the slope of the line that passes through the given points?

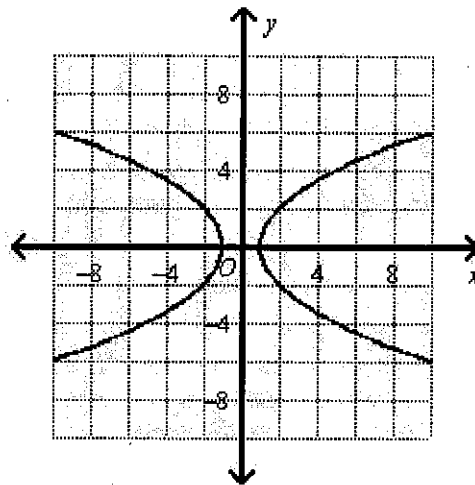
(6, 2) and (7, 4)

- ☐ A. 2
☒ B. $-\frac{1}{2}$
☐ C. $\frac{1}{2}$
☐ D. -2

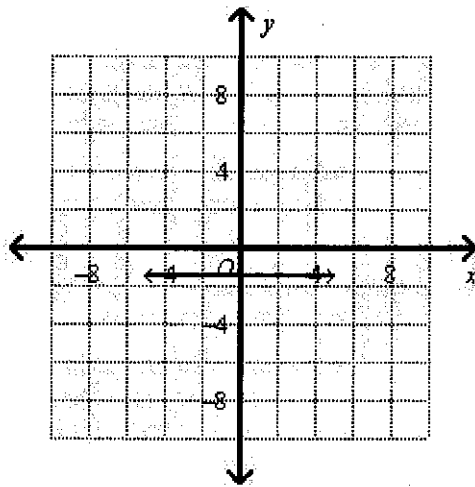
Question 7 of 20

5.0/ 5.0 Points

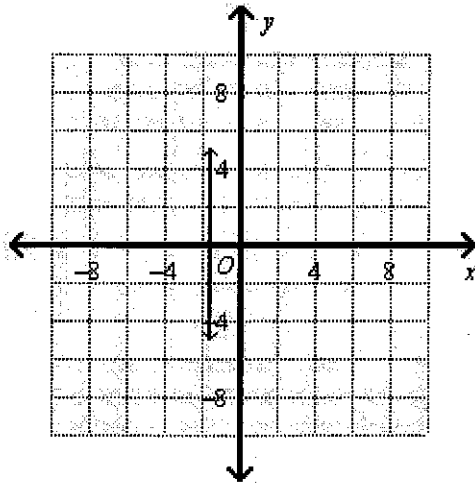
Use the vertical-line test to determine which graph represents a function.



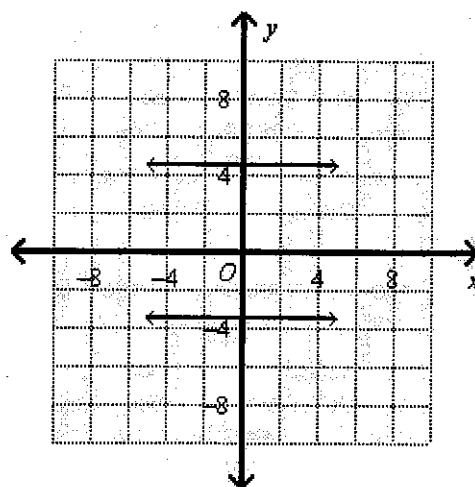
☐ A.



☒ B.



☐ C.



☐ D.

Question 8 of 20

0.0/ 5.0 Points

What is the equation of the line in slope-intercept form? the line perpendicular to

$y = 1/3x + 5$ through $(2, 1)$

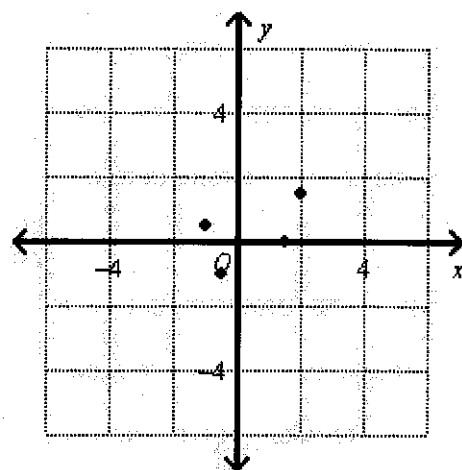
- ☐ A. $y = -3x + 7$
- ☐ B. $y = 1/3x + 7$
- ☒ C. $y = -1/3x + 7$
- ☐ D. $y = 3x + 7$

Question 9 of 20

0.0/ 5.0 Points

Graph the relation. Find the domain and range.

$$\left\{ \left(-1, \frac{1}{2} \right), \left(-\frac{1}{2}, -1 \right), \left(\frac{3}{2}, 0 \right), \left(2, \frac{3}{2} \right) \right\}$$



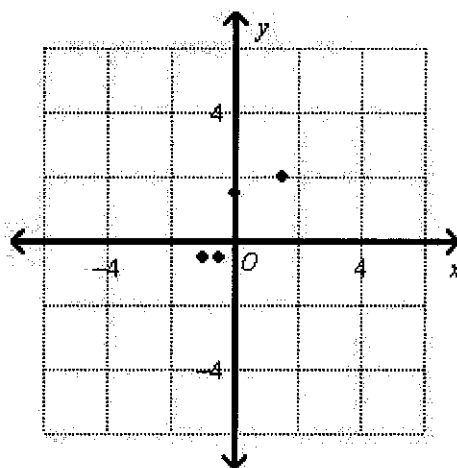
☐ A.

$$\left\{-1, -\frac{1}{2}, \frac{3}{2}, 2\right\}$$

domain:

$$\left\{-1, 0, \frac{1}{2}, \frac{3}{2}\right\}$$

range:



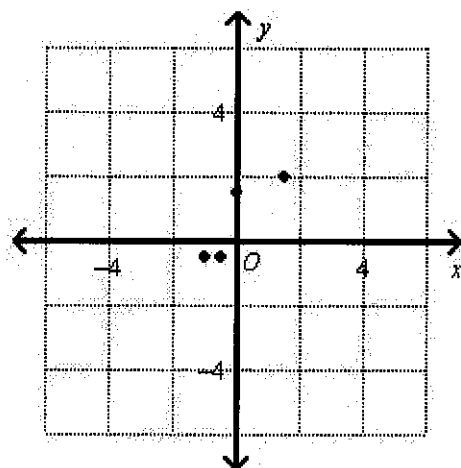
☐ B.

$$\left\{-1, 0, \frac{1}{2}, \frac{3}{2}\right\}$$

domain:

$$\left\{-1, -\frac{1}{2}, 2, \frac{3}{2}\right\}$$

range:



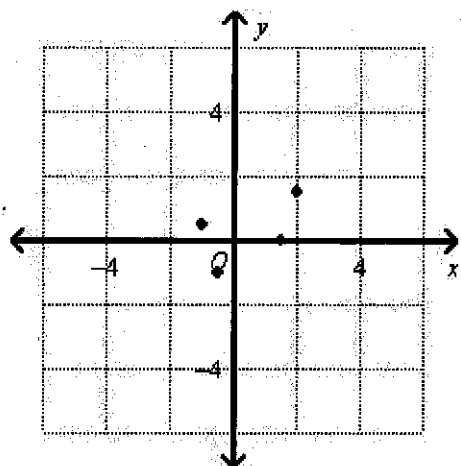
☒ C.

$$\left\{-1, -\frac{1}{2}, 2, \frac{3}{2}\right\}$$

domain:

$$\left\{-1, 0, \frac{1}{2}, \frac{3}{2}\right\}$$

range:



☐ D.

$$\left\{-1, 0, \frac{1}{2}, \frac{3}{2}\right\}$$

domain:

$$\left\{-1, -\frac{1}{2}, 2, \frac{3}{2}\right\}$$

range:

Question 10 of 20

5.0/ 5.0 Points

What is the equation of the given line in standard form? Use integer coefficients.

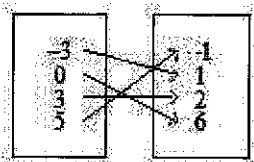
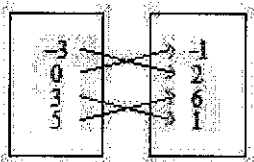
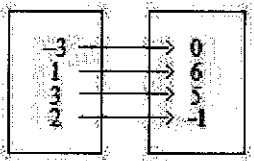
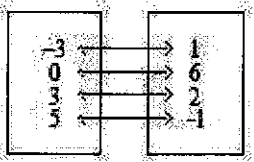
$$y = \frac{5}{7}x - 12$$

- ☐ A. $-5x + 7y = -12$
- ☐ B. $-5x - 7y = -84$
- ☒ C. $-5x + 7y = -84$
- ☐ D. $5x + 7y = -84$

Question 11 of 20

0.0/ 5.0 Points

Make a mapping diagram for the relation.

 $\{(-3, 1), (0, 6), (3, 2), (5, -1)\}$ ☐ A.☐ B.☒ C.☐ D.

Question 12 of 20

0.0/ 5.0 Points

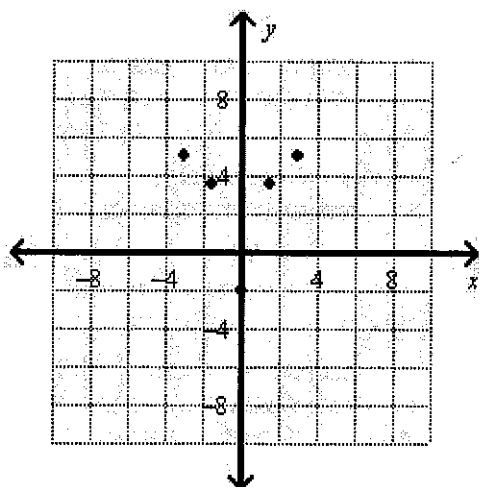
Tickets to a concert are available online for \$20 each, plus a one-time handling fee of \$1.75. The total cost is a function of the number of tickets bought. What function rule models the cost of the concert tickets (t)? Evaluate the function for 3 tickets.

- ☐ A. $1.75t + 20$; \$61.75
- ☐ B. $20t + 1.75$; \$25.25
- ☒ C. $1.75t + 20$; \$25.25
- ☐ D. $20t + 1.75$; \$61.75

0.0/ 5.0 Points

Question 13 of 20

Write the ordered pairs for the relation.



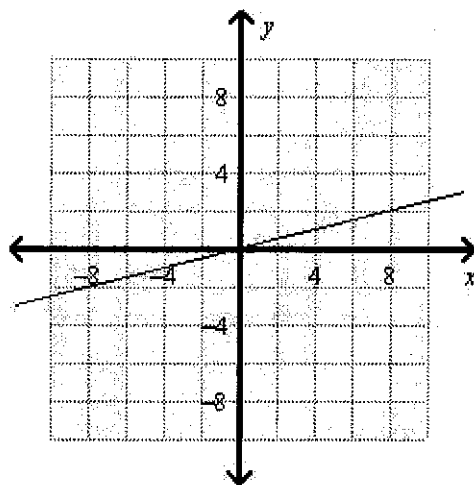
- ☐ A. $\{(-3, 5), (-1.5, 3.5), (0, -2), (1.5, 3.5), (3, 5)\}$
☐ B. $\{(5, -3), (-1.5, 3.5), (-2, 0), (3.5, 1.5), (5, 3)\}$
☒ C. $\{(5, -3), (3.5, -1.5), (-2, 0), (3.5, 1.5), (5, 3)\}$
☐ D. $\{(-3, 5), (3.5, -1.5), (0, -2), (1.5, 3.5), (3, 5)\}$

Question 14 of 20

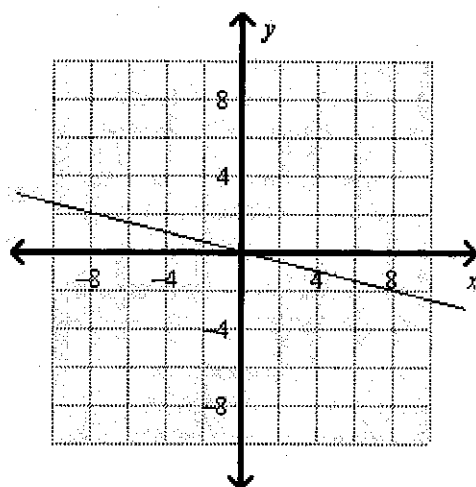
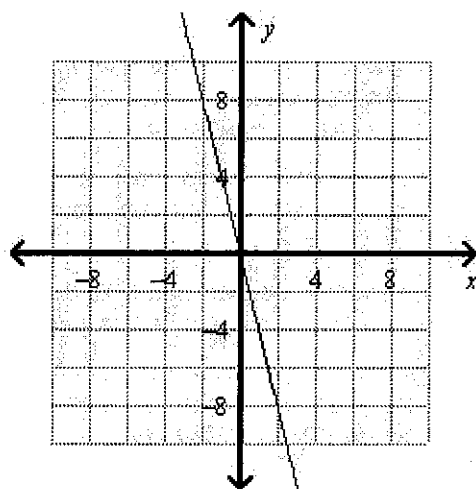
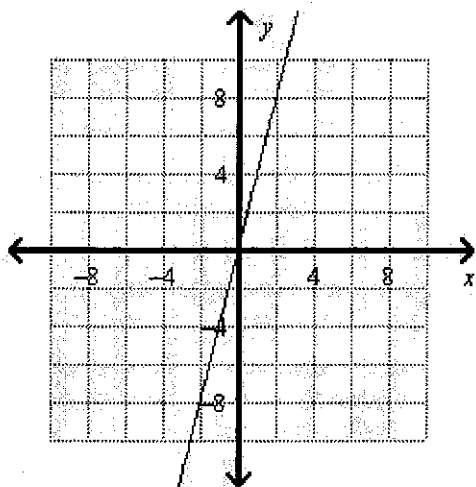
0.0/ 5.0 Points

What is the graph of the direct variation equation?

$$y = -4x$$



- ☐ A.

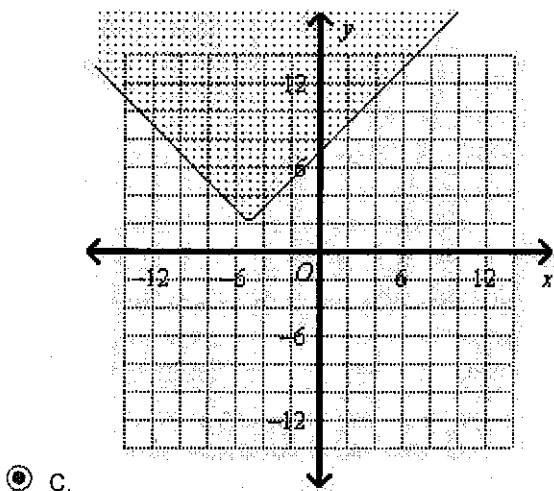
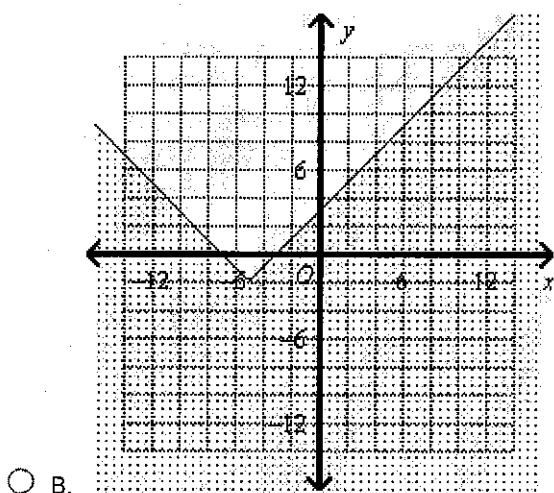
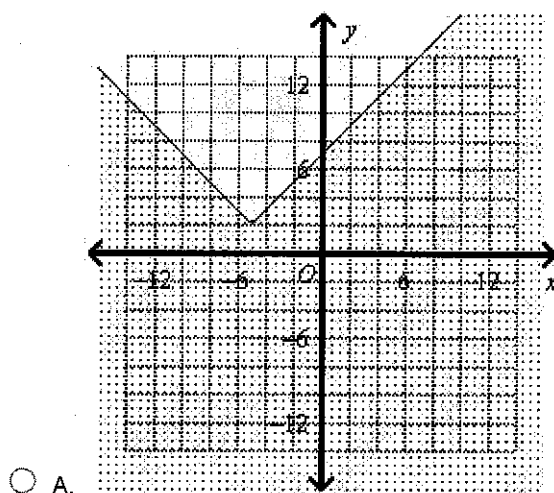

☒ B.

☐ C.

☐ D.

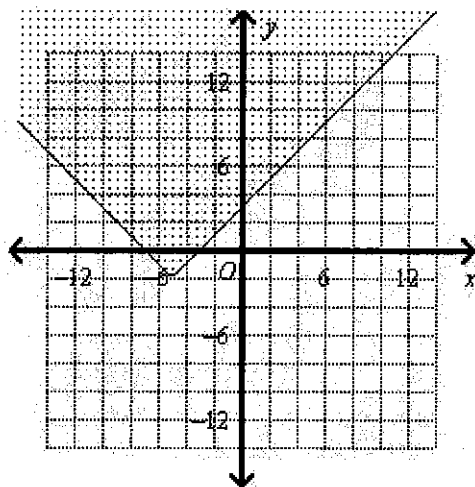
Question 15 of 20

0.0/ 5.0 Points

What is the graph of the absolute value inequality?

$$|x + 5| \geq y - 2$$



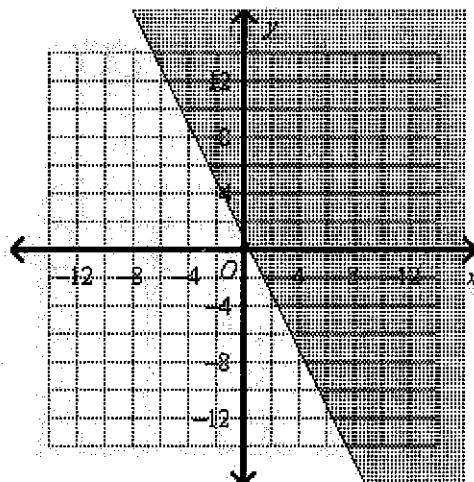
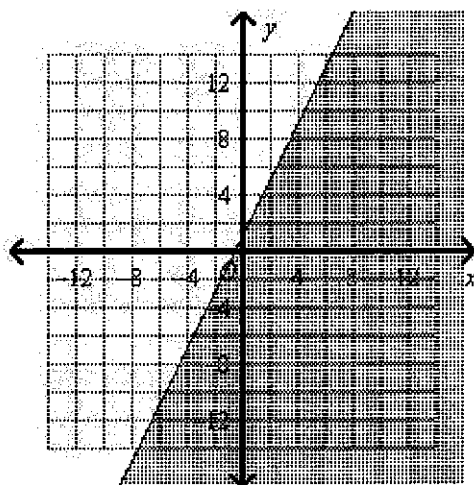

☐ D.

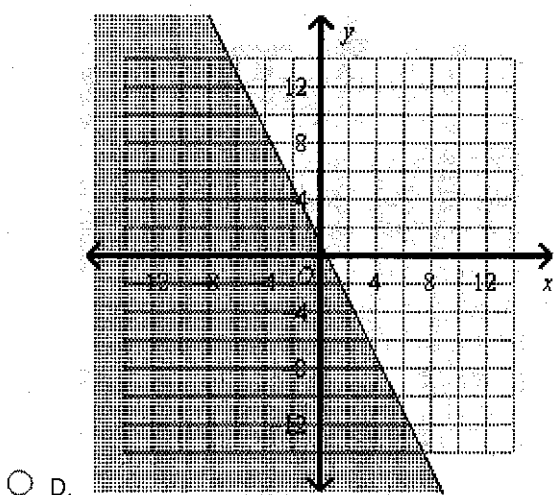
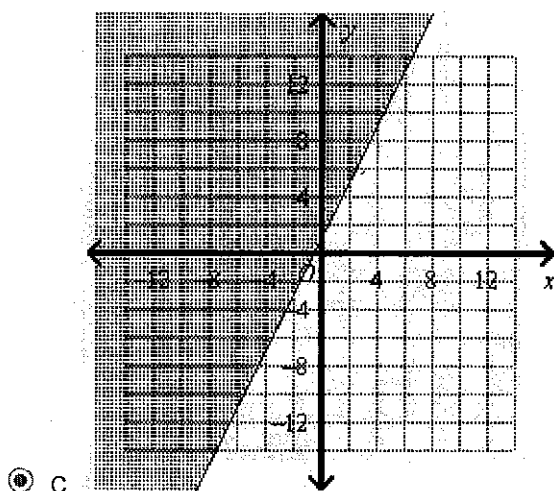
Question 16 of 20

0.0/ 5.0 Points

What is the graph of the inequality?

$$-3y \geq 6x - 3$$

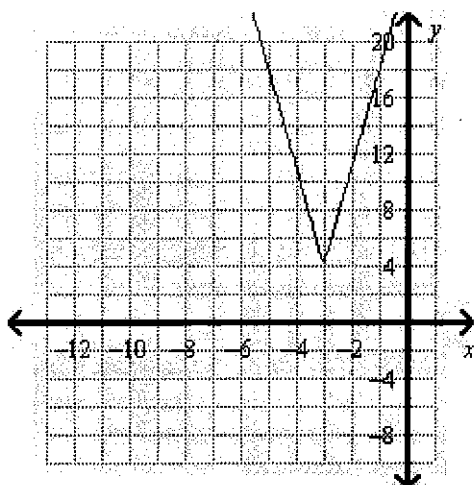

☐ A.

☐ B.



Question 17 of 20

0.0/ 5.0 Points

What is the equation of the absolute value function?



☐ A. $y = -7|x + 3| - 4$

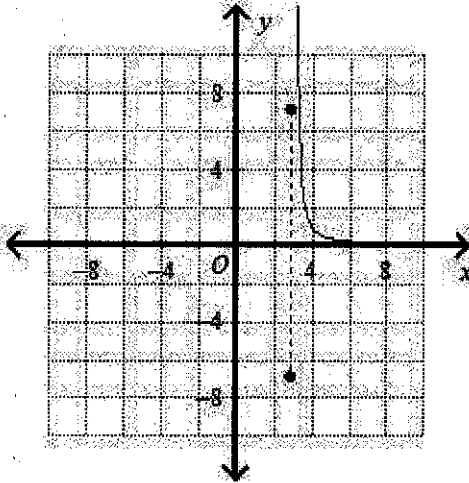
☐ B. $y = 7|x + 3| - 4$

- ☒ C. $y = -7|x - 3| - 4$
- ☐ D. $y = 7|-x - 3| + 4$

Question 18 of 20

0.0/ 5.0 Points

Find the domain and range of the relation and determine whether it is a function.



- ☐ A.
domain: all real numbers; range: all real numbers; Yes, it is a function.
- ☐ B.
domain: positive integers; range: positive integers; No, it is not a function.
- ☒ C.
domain: $x \geq 0$; range: $y > 3$; No, it is not a function.
- ☐ D.
domain: $x > 3$; range: $y > 0$; Yes, it is a function.

Question 19 of 20

0.0/ 5.0 Points

The function $f(x)$ is represented by the table below. What are the corresponding values of $g(x)$ for the transformation $g(x) = 6f(x)$?

x	$f(x)$
-7	8
-3	3
0	-1
2	7

10	5
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☐ A. x g(x)

-7 30

-3 42

0 0

2 18

10 48

☒ B. x g(x)

-7 -48

-3 -18

0 6

2 -42

10 -30

☐ C. x g(x)

-7 -42

-3 -18

0 0

2 12

10 60

☐ D. x g(x)

-7 48

-3 18

0 -6

2 42

10 30

Question 20 of 20

5.0/ 5.0 Points

Let $g(x)$ be the reflection of $f(x) = x^2 + 3$ in the x-axis. What is the function rule for $g(x)$?

☒ A. $g(x) = -x^2 - 3$

☐ B. $g(x) = -x^2 + 3$

☐ C. $g(x) = x^2 - 3$

☐ D. $g(x) = x^2 + 3$