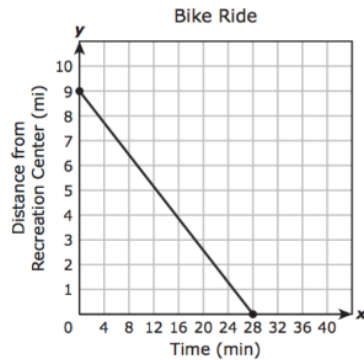


STAAR Released Item

A.2(A) 2016 item 44
[Describing Linear Functions]

A student rode a bike from school to a recreation center. The graph shows the student's distance in miles from the recreation center after riding the bike for x minutes.

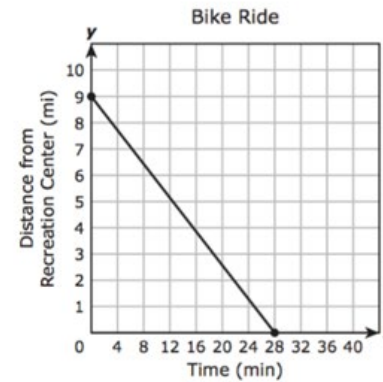


What is the range of the function for this situation?

- F All real numbers greater than or equal to 0 and less than or equal to 28
- G All real numbers greater than or equal to 0 and less than or equal to 9
- H All real numbers less than or equal to 28
- J All real numbers less than or equal to 9

Inline Choice

A student rode a bike from school to a recreation center. The graph shows the student's distance in miles from the recreation center after riding the bike for x minutes.



What is the range of the function for this situation?

All real numbers or equal to 0 and less than or equal to
greater than 9
less than 28

STAAR Released Item

A.2(B) 2016 item 46
[Writing Linear Equations]

Which equation in standard form has a graph that passes through the point $(-4, 2)$ and has a slope of $\frac{9}{2}$?

- F $9x - 2y = 36$
- G $9x - 2y = 26$
- H $9x - 2y = -40$
- J $9x - 2y = -10$

Equation Editor

Write an equation in standard form that represents a graph that passes through the point $(-4, 2)$ and has a slope of $\frac{9}{2}$.

Enter your answer in the space provided.

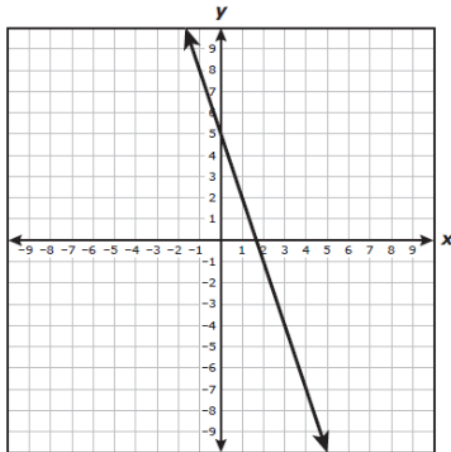
← → ↶ ↷ ✖

1	2	3	x	y			
4	5	6	+	-	•	÷	
7	8	9	<	≤	=	≥	>
	0		□ [□]	()	√□	π	
.	-	□ [□]					

STAAR Released Item

A.2(C) 2018 item 43
[Writing Linear Equations]

The graph of a linear function is shown on the grid.

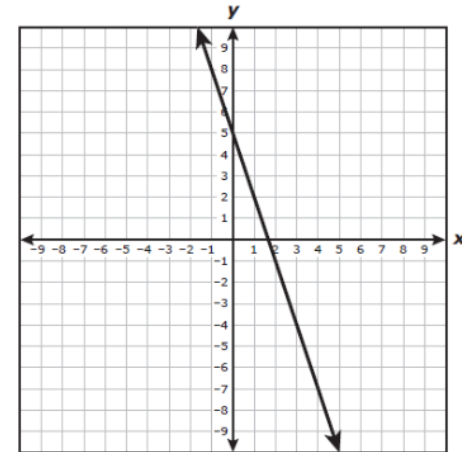


Which equation is best represented by this graph?

- A $y + 7 = -3(x - 4)$
- B $y + 1 = -3(x + 2)$
- C $y - 4 = 3(x + 7)$
- D $y - 2 = 3(x - 1)$

Multiselect

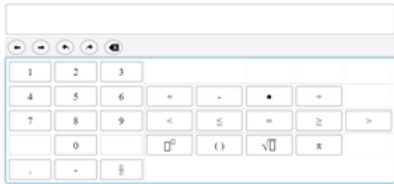
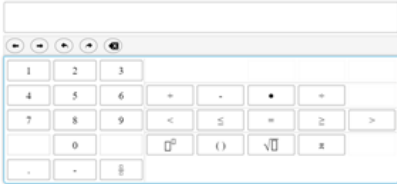
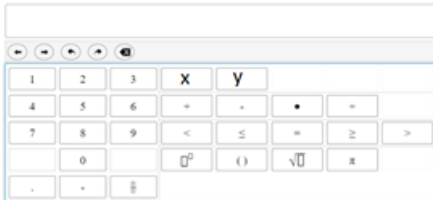
The graph of a linear function is shown on the grid.



Which equation represents this graph?

Select **TWO** correct answers.

- $y - 8 = -3(x + 1)$
- $y + 7 = -3(x - 4)$
- $y + 1 = -3(x + 2)$
- $y - 4 = 3(x + 7)$
- $y - 2 = 3(x - 1)$

STAAR Released Item	Equation Editor/Text Entry
<p>A.2(D) 2021 item 42 [Solving Linear Equations]</p> <p>The value of y is directly proportional to the value of x. When $x = 3.5$, the value of y is 14.</p> <p>What is the value of y when $x = 28$?</p> <p>Record your answer and fill in the bubbles on your answer document.</p>	<p>The value of y is directly proportional to the value of x. When $x = 3.5$, the value of y is 14.</p> <p>What is the value of y when $x = 28$?</p> <p>Enter your answer in the space provided.</p> 
<p>A.2(D) 2016 item 42 [Solving Linear Equations]</p> <p>In an electrical circuit, the voltage across a resistor is directly proportional to the current running through the resistor. If a current of 12 amps produces 480 volts across a resistor, how many volts would a current of 1.5 amps produce across an identical resistor?</p> <p>Record your answer and fill in the bubbles on your answer document.</p>	<p>In an electrical circuit, the voltage across a resistor is directly proportional to the current running through the resistor. If a current of 12 amps produces 480 volts across a resistor, how many volts would a current of 1.5 amps produce across an identical resistor?</p> <p>Enter your answer in the space provided.</p> 
<p>A.2(F) 2019 item 10 [Writing Linear Equations]</p> <p>What is the equation in slope-intercept form of the line that crosses the x-axis at 36 and is perpendicular to the line represented by $y = -\frac{4}{9}x + 5$?</p> <p>F $y = \frac{4}{9}x + 16$</p> <p>G $y = \frac{4}{9}x - 16$</p> <p>H $y = \frac{9}{4}x + 81$</p> <p>J $y = \frac{9}{4}x - 81$</p>	<p>Write an equation in slope-intercept form that crosses the x-axis at 36 and is perpendicular to the line represented by $y = -\frac{4}{9}x + 5$.</p> <p>Enter your answer in the space provided.</p> 

STAAR Released Item

A.3(B) 2017 item 52
[Writing Linear Equations]

The function $y = 3.75 + 1.5(x - 1)$ can be used to determine the cost in dollars for a taxi ride of x miles. What is the rate of change of the cost in dollars with respect to the number of miles?

- F \$1.50 per mile
- G \$3.75 per mile
- H \$4.25 per mile
- J \$5.25 per mile

Text Entry

The function $y = 3.75 + 1.5(x - 1)$ can be used to determine the cost in dollars for a taxi ride of x miles. What is the rate of change of the cost in dollars with respect to the number of miles?

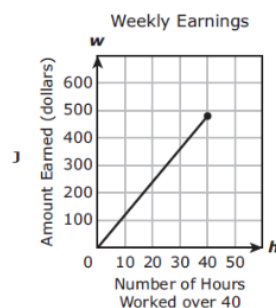
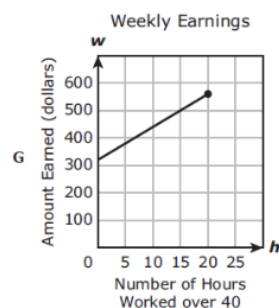
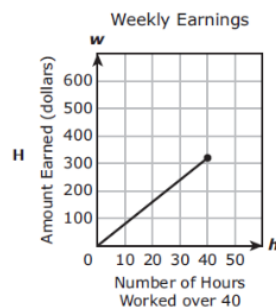
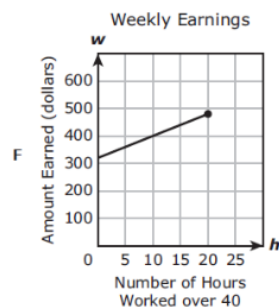
Enter your answer in the space provided.

STAAR Released Item

A.3(C) 2017 item 12
[Describing Linear Equations]

A lifeguard earns \$320 per week for working 40 hours plus \$12 per hour worked over 40 hours. A lifeguard can work a maximum of 60 hours per week.

Which graph best represents the lifeguard's weekly earnings in dollars for working h hours over 40?

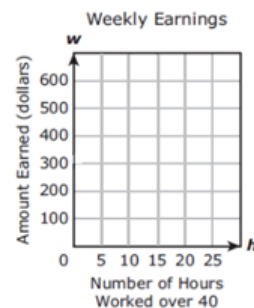


Graphing

A lifeguard earns \$320 per week for working 40 hours plus \$12 per hour worked over 40 hours. A lifeguard can work a maximum of 60 hours per week.

Graph the line that represents the lifeguard's weekly earnings in dollars for working h hours over 40.

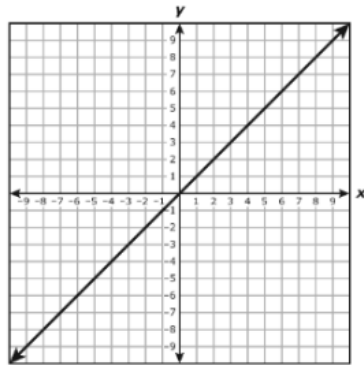
Select two points on the coordinate grid. A line will connect the points.



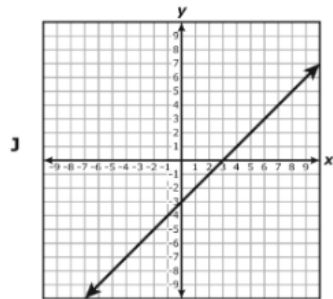
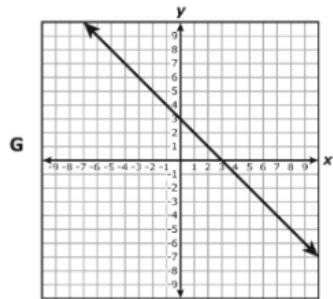
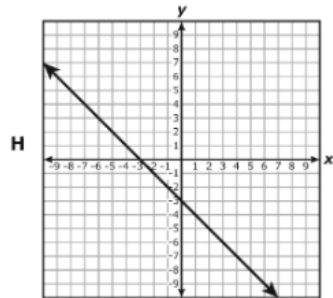
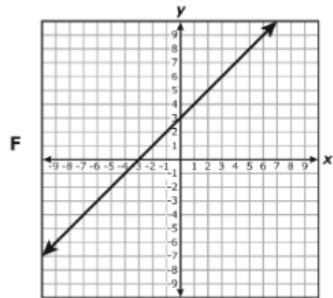
STAAR Released Item

A.3(E) 2019 item 52
[Describing Linear Equations]

Linear parent function f is graphed on the grid.

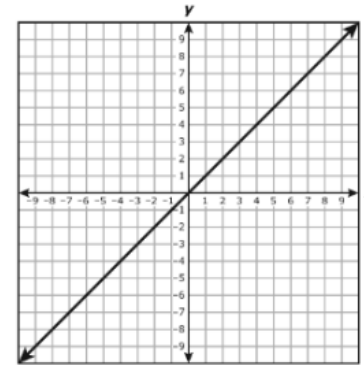


Which graph best represents $h(x) = -f(x) + 3$?



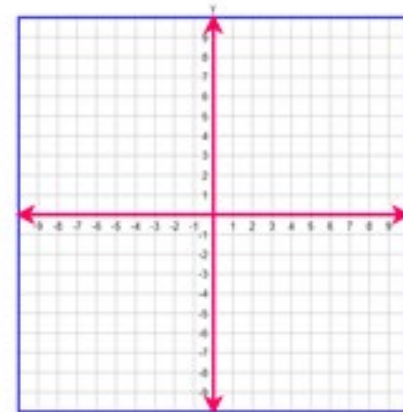
Graphing

Linear parent function f is graphed on the grid.



Graph the line that best represents $h(x) = -f(x) + 3$.

Select two points on the coordinate grid. A line will connect the points.



STAAR Released Item	Inline Choice															
<p>A.3(E) 2016 item 11 [Describing Linear Equations]</p> <p>Linear function $f(x) = x$ is graphed on a coordinate plane. The graph of a new line is formed by changing the slope of the original line to $\frac{2}{3}$ and the y-intercept to 4. Which statement about the relationship between these two graphs is true?</p> <p>A The graph of the new line is steeper than the graph of the original line, and the y-intercept has been translated down.</p> <p>B The graph of the new line is less steep than the graph of the original line, and the y-intercept has been translated up.</p> <p>C The graph of the new line is steeper than the graph of the original line, and the y-intercept has been translated up.</p> <p>D The graph of the new line is less steep than the graph of the original line, and the y-intercept has been translated down.</p>	<p>Linear function $f(x) = x$ is graphed on a coordinate plane. The graph of a new line is formed by changing the slope of the original line to $\frac{2}{3}$ and the y-intercept to 4.</p> <p>Complete the statement about the relationship between the two graphs.</p> <p>Choose the correct answer from each drop-down menu to complete the statement.</p> <p>The graph of the new line is <input type="text" value="Choose..."/> than the graph of the original line, less steep steeper</p> <p>and the y-intercept has been translated <input type="text" value="Choose..."/>. up down</p>															
STAAR Released Item	Table Match Grid															
<p>A.4(B) 2017 item 9 [Describing Linear Equations]</p> <p>Which situation best represents causation?</p> <p>A When the number of bus stops increases, the number of car sales decreases.</p> <p>B When fewer firefighters report to a house fire, the damage caused by the fire decreases.</p> <p>C When ice cream sales increase, incidents of sunburn increase.</p> <p>D When it rains several inches, the water level of a lake increases.</p>	<table border="1"> <thead> <tr> <th></th> <th>Causation</th> <th>No Causation</th> </tr> </thead> <tbody> <tr> <td>When the number of bus stops increases, the number of car sales decreases.</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>When fewer firefighters report to a house fire, the damage caused by the fire decreases.</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>When ice cream sales increase, incidents of sunburn increase.</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>When it rains several inches, the water level of a lake increases.</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </tbody> </table>		Causation	No Causation	When the number of bus stops increases, the number of car sales decreases.	<input type="checkbox"/>	<input type="checkbox"/>	When fewer firefighters report to a house fire, the damage caused by the fire decreases.	<input type="checkbox"/>	<input type="checkbox"/>	When ice cream sales increase, incidents of sunburn increase.	<input type="checkbox"/>	<input type="checkbox"/>	When it rains several inches, the water level of a lake increases.	<input type="checkbox"/>	<input type="checkbox"/>
	Causation	No Causation														
When the number of bus stops increases, the number of car sales decreases.	<input type="checkbox"/>	<input type="checkbox"/>														
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When it rains several inches, the water level of a lake increases.	<input type="checkbox"/>	<input type="checkbox"/>														

STAAR Released Item

A.5(A) 2017 item 11
[Solving Linear Equations]

What is the solution to $8x - 3(2x - 4) = 3(x - 6)$?

- A 6
- B 2
- C 30
- D No solution

Text Entry

What is the solution to $8x - 3(2x - 4) = 3(x - 6)$?

Enter your answer in the space provided.

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1	2	3					
4	5	6	+	-	•	÷	
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STAAR Released Item

A.12(A) 2016 item36
[Describing Linear Equations]

Which table represents y as a function of x ?

F

x	y
-5	-5
3	-2
-5	5
-3	-2

H

x	y
-3	-4
1	4
-3	4
1	-4

G

x	y
6	-6
-6	6
8	-8
-8	8

J

x	y
2	-1
2	-2
2	-3
2	-4

Table Match Grid

Which tables represent y as a function of x ?

Select the correct answer in each row.

					Function	Not a Function	
x	-5	3	-5	-3	<input type="checkbox"/>	<input type="checkbox"/>	
y	-5	-2	5	-2			
x	6	-6	8	-8	<input type="checkbox"/>	<input type="checkbox"/>	
y	-6	6	-8	8			
x	-3	1	-3	1	<input type="checkbox"/>	<input type="checkbox"/>	
y	-4	4	4	-4			
x	2	2	2	2	<input type="checkbox"/>	<input type="checkbox"/>	
y	-1	-2	-3	-4			

STAAR Released Item

A.12(E) 2016 item 18
[Solving Linear Equations]

Which of the following is equivalent to $3x - 4y = 6$?

F $y = -\frac{6}{7}x$

G $y = -\frac{3}{4}x$

H $y = \frac{4}{3}x + 2$

J $y = \frac{3}{4}x - \frac{3}{2}$

Equation Editor

Write an equation in slope-intercept form that represents the graph $3x - 4y = 6$.

Enter your answer in the space provided.

The equation editor interface includes a grid of symbols and operators. The grid contains the following elements:

1	2	3	x	y			
4	5	6	+	-	•	÷	
7	8	9	<	≤	=	≥	>
	0		□ [□]	()	√□	π	
.	-	□ [□]					