

Algebra 1 SOL Review Session

Day: 2

Topics: Linear Functions and Slope

Key Concepts:

- Relations and Functions, Evaluating Functions
 - Domain and Range
- Slope
 - Parallel and Perpendicular Lines
- Graphing Linear Functions
 - Intercepts, Zeros, Slope-Intercept Form

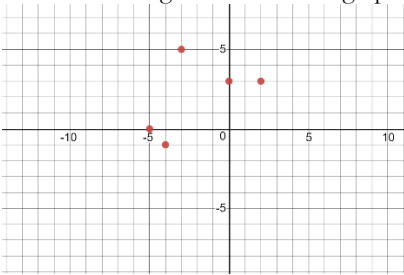
Guided Practice:

Relations and Functions

Activity 1: Slope Identification (Handout)

Graphing Linear Functions

Independent Practice:

<p>What is the slope of the line represented by the equation $3x - 2y = -8$?</p>	<p>Let $f(x) = x$ and $g(x) = 6x - 1$, complete the statements to compare the graph of $g(x)$ to the graph of $f(x)$.</p> <p>The graph of $g(x)$ is shifted up/down from the graph of $f(x)$.</p> <p>The graph of $g(x)$ is steeper/less steep than the graph of $f(x)$.</p>											
<p>What is the range of the relation graphed below?</p> 	<p>What is the slope of the line that is perpendicular to the line that is represented by the equation $\frac{2}{3}x - 2y = 8$.</p>											
<p>Using the ordered pairs shown, create a relation containing three ordered pairs with a domain of $\{-1, 2, 4\}$</p> <table border="1" data-bbox="141 1583 769 1694"><tr><td>$(-3, -1)$</td><td>$(-1, 0)$</td><td>$(-2, 2)$</td></tr><tr><td>$(4, -2)$</td><td>$(3, 4)$</td><td>$(2, 3)$</td></tr></table>	$(-3, -1)$	$(-1, 0)$	$(-2, 2)$	$(4, -2)$	$(3, 4)$	$(2, 3)$	<p>Identify each function that has an x-intercept of 3.</p> <table border="1" data-bbox="985 1530 1310 1904"><tr><td>$f(x) = \frac{-4x + 15}{5}$</td></tr><tr><td>$g(x) = 3 - \frac{1}{2}x^2$</td></tr><tr><td>$h(x) = \frac{5}{3}x - 5$</td></tr><tr><td>$j(x) = (x + 3)(x - 5)$</td></tr><tr><td>$k(x) = 3x^2 - 11x + 6$</td></tr></table>	$f(x) = \frac{-4x + 15}{5}$	$g(x) = 3 - \frac{1}{2}x^2$	$h(x) = \frac{5}{3}x - 5$	$j(x) = (x + 3)(x - 5)$	$k(x) = 3x^2 - 11x + 6$
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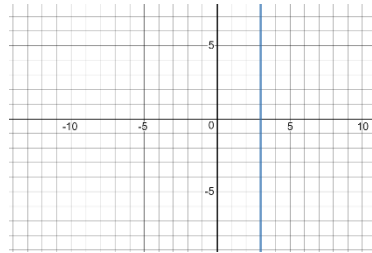
More Independent Practice (Multiple Choice)

Which relation is a function?

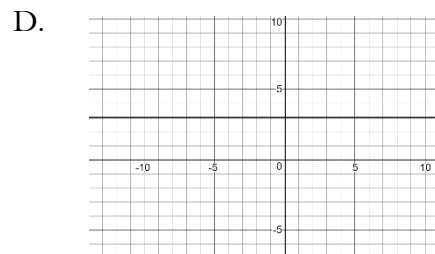
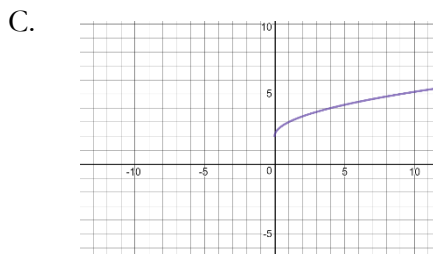
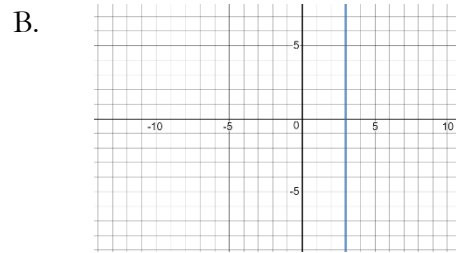
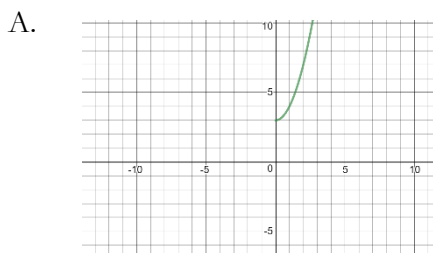
- A. $\{(2,3),(-3,5),(3,0),(2,6)\}$
 C.

x	y
-2	5
0	6
3	6
4	8
3	2

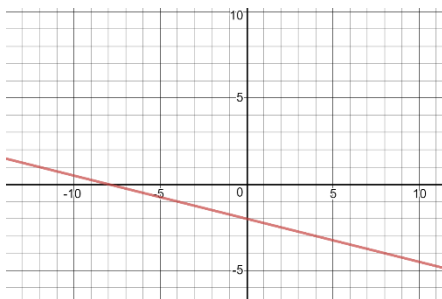
- B. $\{(2,4),(-4,2),(0,0),(2,3)\}$
 D.



Which of the following graphs appears to show a relation that is not a function?

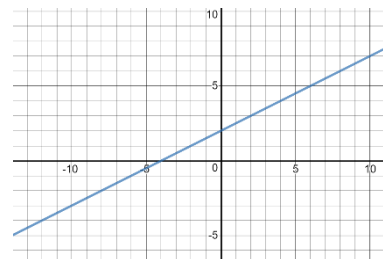


The graph of line p is shown. Which of the following is the closest value of the slope of line p ?



- A. 4
 C. $\frac{1}{4}$
 B. -4
 D. $-\frac{1}{4}$

Let $f(x) = x$. The graph of $g(x)$ is shown. The slope of $g(x)$ is _____ the slope of $f(x)$.



- A. Twice
 C. Two more than
 B. One-half
 D. Two less than