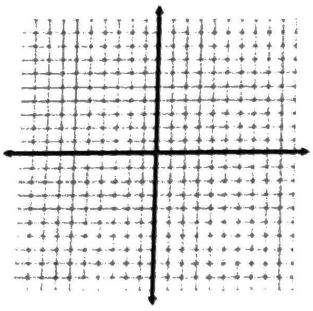
Algebra I Name: _____ Block: _____ Date: _____ **Worksheet 4.4**

SOL A.6 Finding Slope and Rate of Change

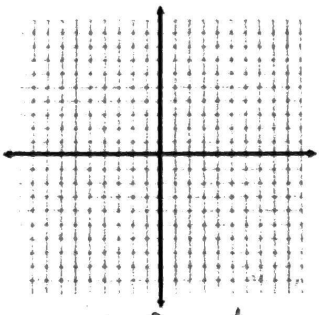
Plot the points and draw a line through them. Then tell whether the slope of the line is *positive*, *negative*, *zero*, or *undefined*. DRAW

1. (1, -4) and (5, -8) — $x_1\ y_1$ $x_2\ y_2$



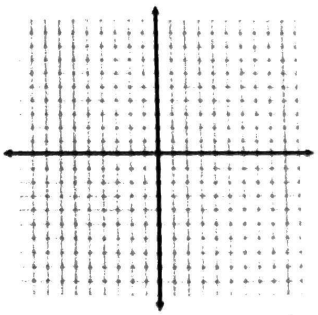
Negative

2. (-3,6) and (-3, 0) — $x_1 y_1$ $x_2 y_2$



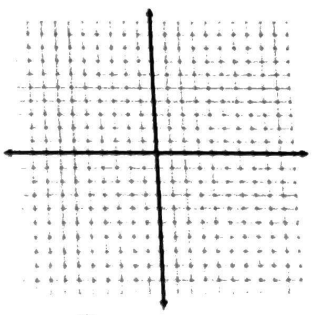
Undefined
vertical line

3. (7, 1) and (-2, 1)



0 = Constant slope

4. (-4, -5) and (-3, -2)



3

Find the slope of the line that passes through the points.

5. (1, 2) and (7, 7) — $x_1 y_1$ $x_2 y_2$

$a = \frac{7-2}{7-1} = \frac{5}{6}$

6. (3, 4) and (-5, 0)

$a = \frac{0-4}{-5-3} = \frac{-4}{-8} = \frac{1}{2}$

7. (5, -2) and (5, 8)

$a = \frac{8--2}{5-5} = \frac{10}{0}$

Undefined

8. (3, 0) and (8, 0)

$a = \frac{0-0}{8-3}$

$a = 0$

9. (-6, -6) and (-2, -2)

$a = \frac{-2--6}{-2--6} = \frac{4}{4}$

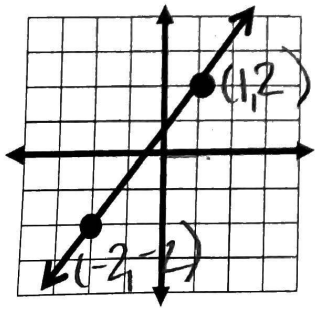
$a = 1$

10. (-5, -4) and (1, -2)

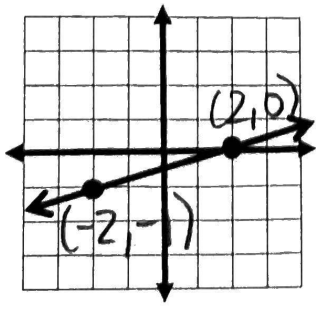
$a = \frac{-2--4}{1--5} = \frac{2}{6} = \frac{1}{3}$

Find the slope of the line that passes through the points.

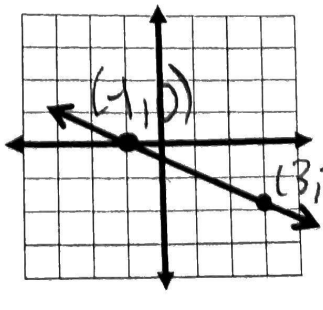
11. Slope= 4/3



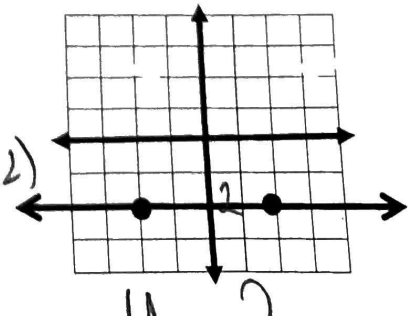
12. Slope= 1/4



13. Slope= -1/2



14. Slope = _____



y = 2
(horizontal slope
No "x")

15. A ramp has a rise of 10 feet and a run of 50 feet. Find its slope.

$a = \frac{\text{Rise}}{\text{Run}} = \frac{10}{50} = \frac{1}{5}$