Math 8CP- Chapter 4 Practice Test

Find the slope from the two points given.

1) (2, -2) and (5, 7)

$\frac{7-(-2)}{5-2} = \frac{9}{3} = \boxed{3}$

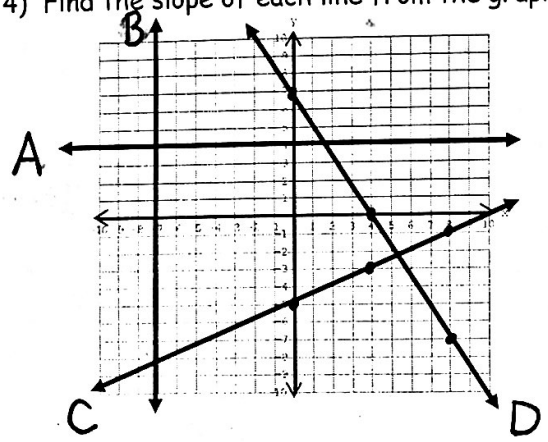
2) (3, 5) and (0, 5)

$\frac{5-5}{3-0} = \frac{0}{3} = \boxed{0}$

3) (-4, 7) and (-4, 3)

$\frac{7-3}{-4-(-4)} = \frac{4}{0} = \boxed{\text{undefined}}$

4) Find the slope of each line from the graph.



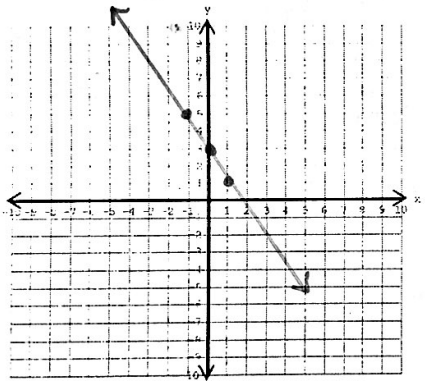
A) zero

B) undefined

C) $\frac{1}{2}$

D) $-\frac{7}{4}$

5) Graph $y = -2x + 3$ using a table of values.



x	y
-1	5
0	3
1	1

$y = -2(-1) + 3$
$= 2 + 3$

$y = -2(0) + 3$
$0 + 3$

$y = -2(1) + 3$
$-2 + 3$

6) a) If the slope of a line is $\frac{2}{3}$, a line parallel to it has a slope of $\frac{2}{3}$.

b) If the slope of a line is $\frac{2}{3}$, a line perpendicular to it has a slope of $-\frac{3}{2}$.

7) If it costs \$15 for 5 burritos, determine the following: $\frac{\$15}{5} = \frac{\$3}{1}$

a) The slope: 3

b) Interpret the slope using words: \$3 per burrito

c) Write the equation in $y = mx$ form. $y = 3x$

Re-write in slope-intercept form. Then find the slope and y-intercept.

8) $4x - y = 5$

$-y = -4x + 5$

$y = 4x - 5$

slope-int: $y = 4x - 5$

Slope: 4

y-int: -5

9) $-3x + 10y = 80$

$\frac{10y}{10} = \frac{3x + 80}{10}$ $\quad y = \frac{3}{10}x + 8$

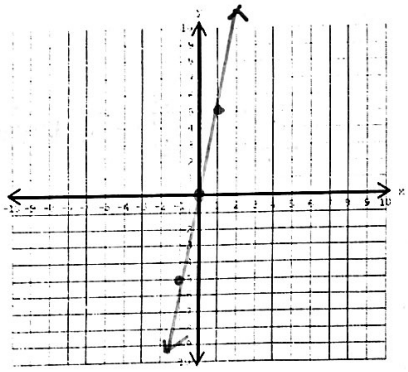
slope-int: $y = \frac{3}{10}x + 8$

slope: $\frac{3}{10}$

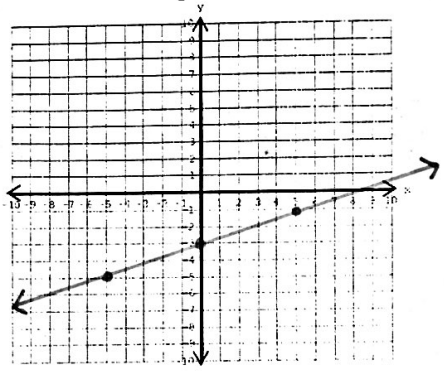
y-int: 8

Graph each equation using any method.

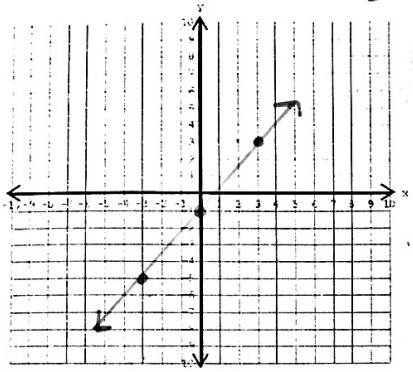
10) $y = 5x$



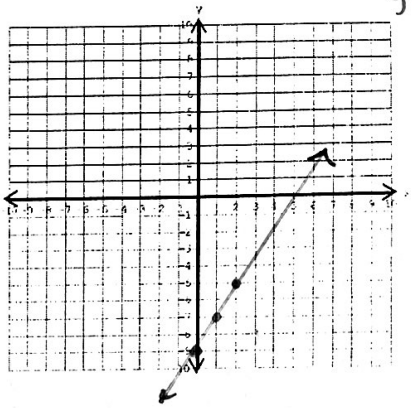
11) $y = \frac{2}{5}x - 3$



12) $-4x + 3y = -3$ $\frac{3y}{3} = \frac{4x-3}{3}$ $y = \frac{4}{3}x - 1$

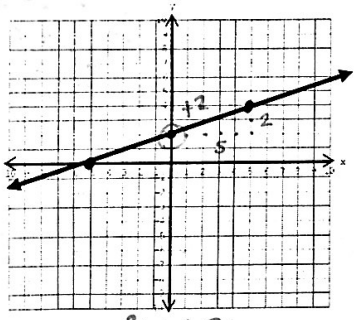


13) $2x - y = 9$ $-y = -2x + 9$ $y = 2x - 9$



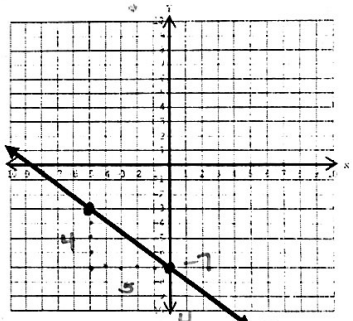
Write the equation of the line in slope-intercept form.

14)



$y = \frac{2}{5}x + 2$

15)



$y = -\frac{4}{5}x - 7$

Use point slope form to write an equation of a line in slope-intercept form.

16) $(3, -4)$ $m = 2$

$y + 4 = 2(x - 3)$

$y + 4 = 2x - 6$

$\boxed{y = 2x - 10}$

17) $(6, -1)$ $m = \frac{1}{2}$

$y + 1 = \frac{1}{2}(x - 6)$

$y + 1 = \frac{1}{2}x - 3$

$\boxed{y = \frac{1}{2}x - 4}$

18) (-2, 1) and (3,-4)

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

$y - 1 = -1(x + 2)$

$y - 1 = -1x - 2$

$\boxed{y = -1x - 1}$

19) (-8, 6) and (-2, 9)

$\frac{6-9}{-8-(-2)} = \frac{-3}{-6} = \frac{1}{2}$

$y - 6 = \frac{1}{2}(x + 8)$

$y - 6 = \frac{1}{2}x + 4$

$\boxed{y = \frac{1}{2}x + 10}$