

DIRECTIONS: 1-3: Evaluate or solve. Leave answers in function notation.

1)  $f(x) = -|-2x + 6| + 3$ ; Find  $f(x) = 1$

2)  $h(b) = -3\sqrt{10b} + 6\sqrt{20b}$ ; Find  $h(5)$

3)  $g(u) = u^2 + 9u$ ; Find  $g(u) = 90$

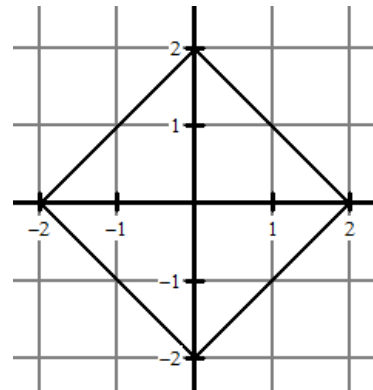
DIRECTIONS #4 - 8: Complete each using the corresponding graph.

4) Domain:

5) Range:

6) Find  $f(1)$

7) Find  $x$ , when  $f(x) = -2$



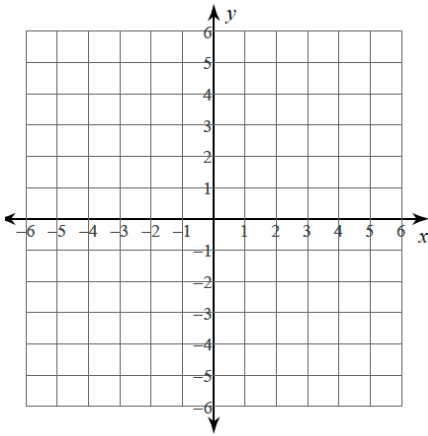
8) Is the relation a function? Why or why not?

9) Find the slope  $(-3, -9)$ ,  $(12, -4)$

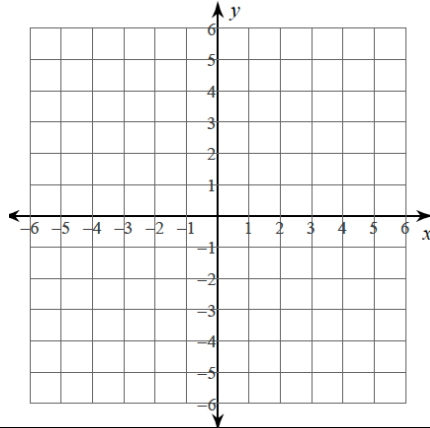
10) Tell whether the two lines are parallel, perpendicular, or neither. Line 1: through  $(10, 2)$  and  $(5, 5)$ . Line 2: through  $(-4, 1)$  and  $(-7, -4)$ .

DIRECTIONS: Graph each equation.

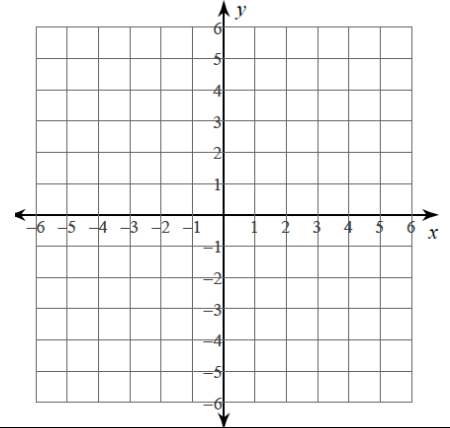
12)  $y = -5x + 2$



13) Find the intercepts then graph.  
 $3x - 6y = -6$



14) Graph.  
 $3x - 2y = 4$



Directions: #18-19: Write the equation of the lines with given information in slope-intercept form.

15) through: (3, -1) and (4, -2)

16) through (2, 1) and perp. to  $y = \frac{1}{2}x + 2$

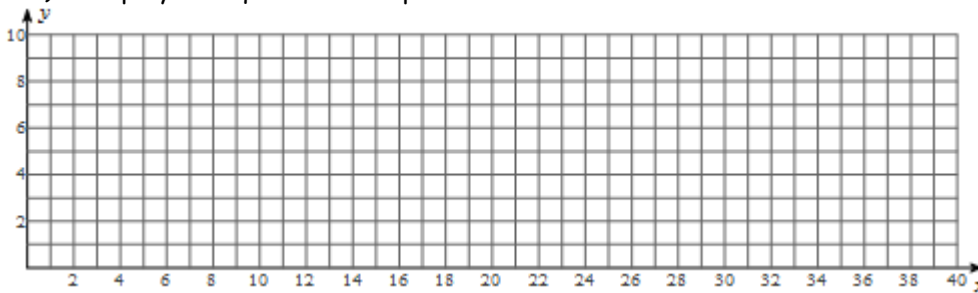
because they are getting so many hits. The CEO of the company says that at 8 hits they'll get \$6 and that when they get to 56 hits they'll get \$12.

a) What is the average rate of change of dollars per hit that the CEO is offering?

b) What's the equation of the line for this situation?

c) How much money does this model have the Algebros start with?

d) Graph your equation from part c.



e) If the Algebros had 1000 hits in one day how much money would the company give the boys?

f) How many hits would it take for the Algebros to make \$1000 from the company?