

UNIT 2 REVIEW

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

1) $f(x) = 2|3x - 5| + 6$; Find $f(x) = 32$

2) $h(b) = 5\sqrt{6b} + 4\sqrt{2b}$; Find $h(24)$

3) $g(u) = u^2 + 20u$; Find $g(u) = -84$

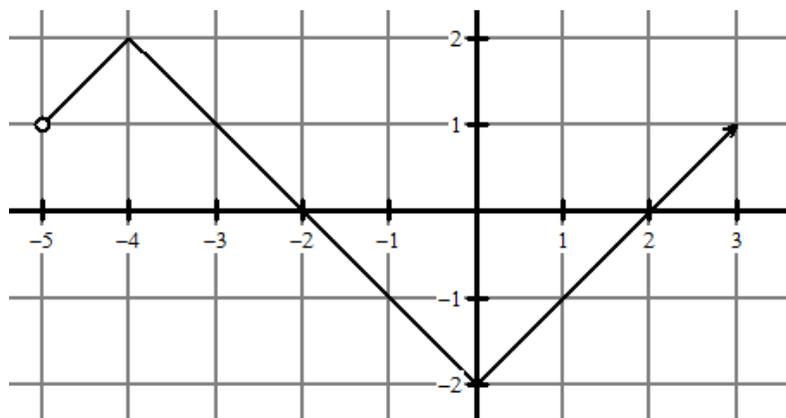
DIRECTIONS #4-8: Complete each using the corresponding graph.

4) Domain:

5) Range:

6) Find $f(-4)$ 7) Find x , when $f(x) = 1$

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



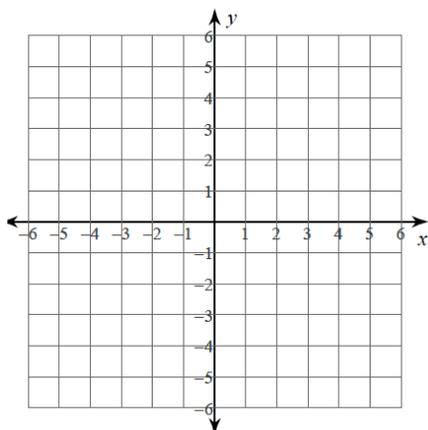
9) Find the slope (5, 8), (12, -4)

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 (-9, 4).

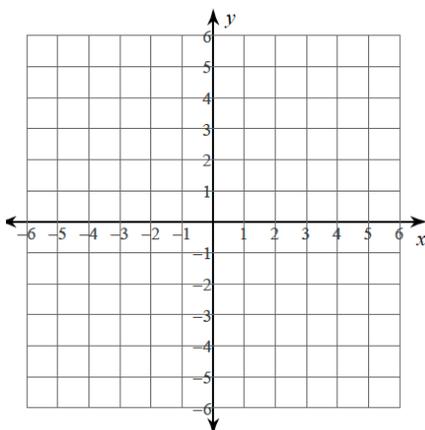
11) After 2 minutes there are 16 Survivor contestants standing on a log. After 10 minutes there are 12 survivor contestants standing. What's the average rate of change in terms of Survivor contestants on the log per minute?

DIRECTIONS: Graph each equation.

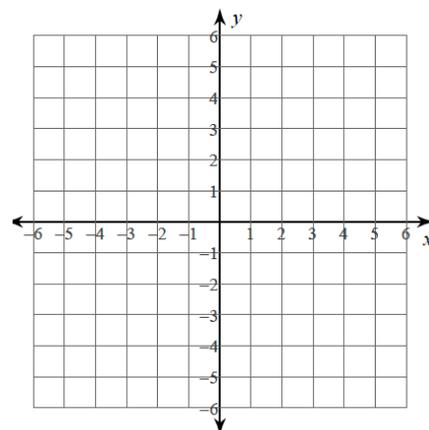
12) $y = \frac{1}{3}x - 2$



13) Find the intercepts then graph.
 $2x + 8y = 8$



14) Graph.
 $5x - 4y = 12$



Directions: #15-16: Write the equation of the lines with given information in slope-intercept form.

15) through: (2, -1) and (1, 5)

16) through (-4, -5) and perp. to $y = -\frac{4}{3}x + 2$

Application and Extension

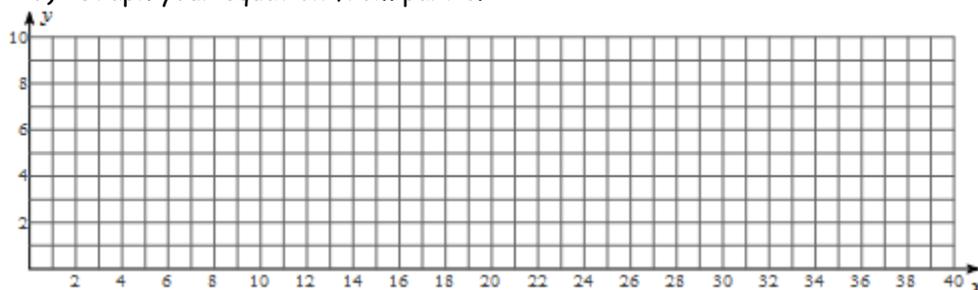
www.flippedmath.com is on FIRE! A big company offers to come in and pay the Algebros to advertise on their page because they are getting so many hits. The CEO of the company says that at 10 hits they'll get \$6 and that when they get to 60 hits they'll get \$21.

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) What does the y-intercept represent in this situation?

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?