

Quiz Review 1a:

Name: _____

Linear Equations and Piecewise Functions

Date: _____ Per: _____

Solve each equation. Check your solution.

1) $56r + 64 = -34 + 7r$

2) $-11(10p - 10) = -110p + 23$

3) $-7(6 + 10x) - 8x = -6(7 + 12x) + 3x$

Solve each equation for the indicated variable.

4) $tx - ux = 3t$, for x

5) $P = 2l + 2w$, for l

6) $\frac{x-3}{6} + 3 = a$, for x

7) $A = \frac{1}{2}bh$, for h

Write an equation for each line in slope-intercept form that satisfies each set of conditions.

8) Passes through $(-2, 4)$ and $(1, 9)$

9) Passes through $(1, -2)$ and parallel to $y = -5x + 3$

10) Passes through $(-3, 2)$ and perpendicular to $y = 3x + 1$

Write an equation for each line in ***standard form***.

11) $y - 2 = \frac{1}{2}(x + 4)$

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

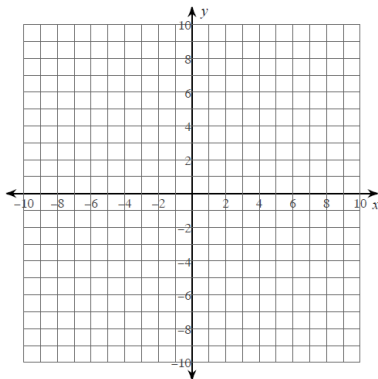
Write an equation for each line in ***point-slope form*** satisfies each set of conditions.

13) Passes through $(0, 1)$ and $(-2, 3)$

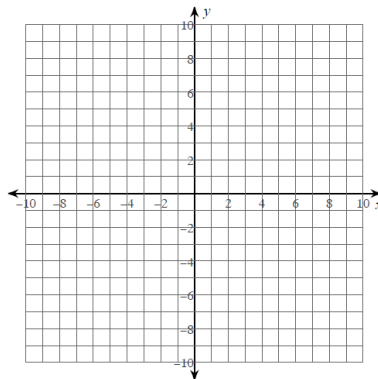
14) Passes through $(5, -2)$ and has a slope of $\frac{2}{7}$.

Graph each equation.

15) $y = -x + 4$



16) $4x + 3y = 12$



17) Madeja had \$250 in her savings account when she decided to start tutoring. She decides to charge \$15 an hour.

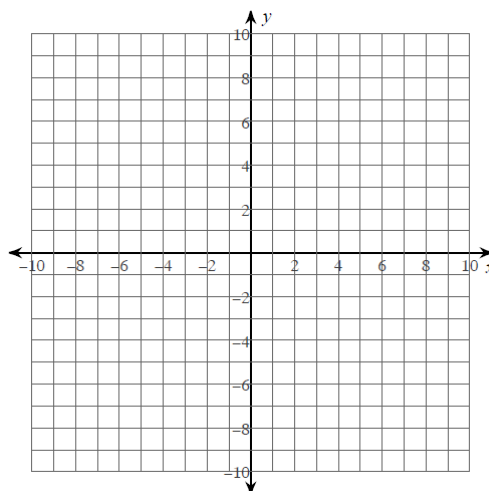
a. Write an equation in slope-intercept form that represents this situation.

b. What does the slope represent in this situation?

c. What does the y-intercept represent in this situation?

Graph the piecewise function and evaluate for the indicated values.

$$18) f(x) = \begin{cases} -x - 5 & \text{if } x < -3 \\ -5 & \text{if } -3 \leq x < 0 \\ \frac{2}{3}x + 1 & \text{if } x > 0 \end{cases}$$



d. $f(-4)$

e. $f(-2)$

f. $f(0)$

g. $f(3)$

h. $f(10)$

Graph the step function.

$$19) f(x) = [x + 3]$$

