

## Summer Assignment

**Simplify each expression.**

1)  $6 + 6n - 10$

2)  $-7n - 5 + 10n - 8$

**Solve each equation.**

3)  $\frac{m}{19} = 12$

4)  $88 = 4b - 8(8b + 4)$

5)  $\left| \frac{n}{6} \right| = 4$

6)  $\left| \frac{n}{2} \right| = 3$

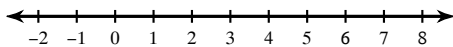
**Solve each equation for the indicated variable.**

7)  $cx = \frac{r}{d}$ , for  $x$

8)  $x + c = d - r$ , for  $x$

**Solve each inequality and graph its solution.**

9)  $82 > 2(8 + 7x) - 3x$

**Solve each proportion.**

10)  $\frac{7}{8} = \frac{4}{r}$

**Solve each problem.**

11) What percent of 134 is 75?

Each table represents a relation. Determine if the relation is a function.

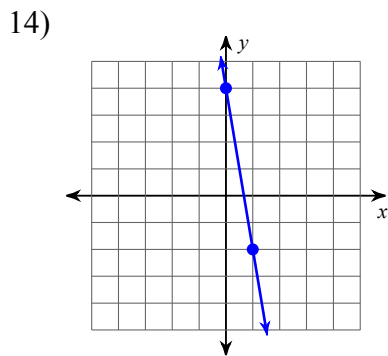
12)

$x$	$y$
-4	0
-4	-4
-2	-6
-2	5
2	2

Evaluate each function for the given value.

13)  $f(x) = 2|x - 5| - 7$ ; Find  $f(3)$

Find the slope of each line.



Find the slope of the line through each pair of points.

15)  $(7, -1), (-10, -7)$

Find the slope of a line parallel to each given line.

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

**Find the slope of a line perpendicular to each given line.**

17)  $y = 5$

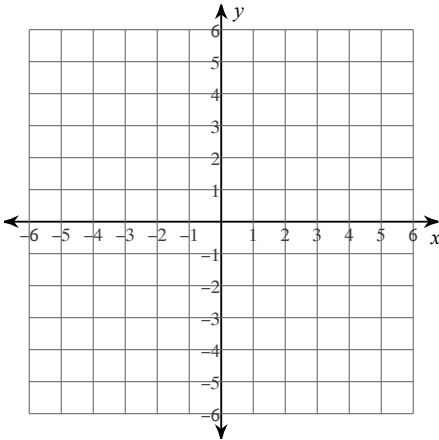
**Find the value of x or y so that the line through the points has the given slope.**

18)  $(1, y)$  and  $(-1, 4)$ ; slope:  $-3$

19)  $(x, -4)$  and  $(5, 4)$ ; slope:  $2$

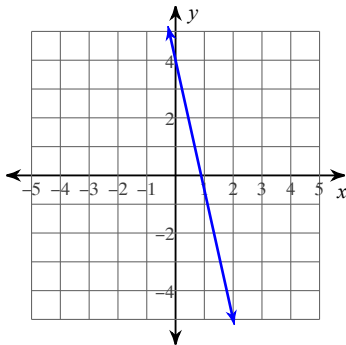
**Sketch the graph of each line.**

20)  $x - 5y = 20$



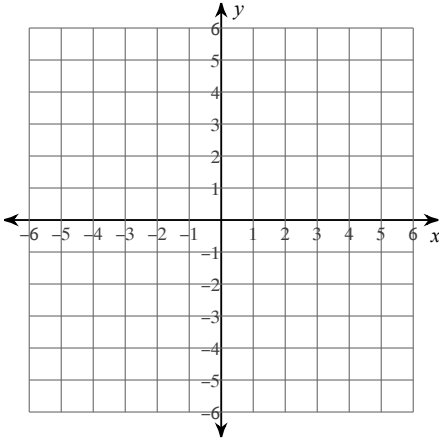
**Write the slope-intercept form of the equation of each line.**

21)



**Sketch the graph of each linear inequality.**

22)  $y \leq 3x - 5$



**Solve each system by graphing.**

23)  $y = \frac{1}{2}x + 1$   
 $y = 3x - 4$

**Solve each system by elimination.**

24)  $-x - 4y = 7$   
 $4x + 7y = -19$

**Solve each system by substitution.**

25)  $x - 4y = 8$   
 $-3x + 3y = 3$

**Simplify. Your answer should contain only positive exponents.**

26)  $2ba^{-3} \cdot 2a^4b^3$

27)  $2uv^{-2} \cdot 2v^4$

**Simplify each expression.**

28)  $(6b - b^2 + b^4) - (2b + 7b^2 - 5b^3)$

**Factor each completely.**

29)  $5v^2 - 95v + 450$

30)  $x^2 - 6x + 9$

31)  $7a^3 + 4a^2 - 14a - 8$

**Simplify.**

32)  $\sqrt{72x}$

33)  $\sqrt{72x^3}$

**Find the distance between each pair of points.**

34)  $(1, -5), (-2, -8)$

**Find the midpoint of the line segment with the given endpoints.**

35)  $(4, 6), (9, 1)$

**Simplify.**

36)  $3\sqrt{8} - 2\sqrt{20} + 3\sqrt{45}$

37)  $2\sqrt{3}(3 + \sqrt{10})$

$$38) -\frac{3}{4 + 4\sqrt{3}}$$

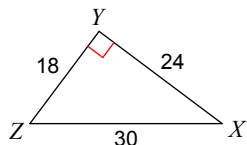
$$39) -\frac{2}{\sqrt{2} + 2\sqrt{5}}$$

Solve each equation. Remember to check for extraneous solutions.

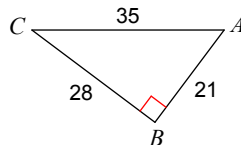
$$40) \sqrt{r + 6} = 1$$

Find the value of each trigonometric ratio.

$$41) \tan Z$$

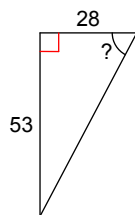


$$42) \cos A$$



Find the measure of the indicated angle to the nearest degree.

$$43)$$



Find the missing side. Round to the nearest tenth.

$$44)$$

