

## Summer Assignment

Date \_\_\_\_\_

**Evaluate each expression.**

1)  $2^2 \times 6$

2)  $6 - 2 \times 2$

3)  $\frac{2}{3} - \frac{4}{3} \div 5$

4)  $2\frac{5}{6} - \left(3 - 1\frac{1}{3}\right)$

5)  $3\frac{1}{2} \times 1\frac{3}{4} \times 1\frac{2}{3}$

6)  $5.3 - (3.7 - 2.9)$

**Evaluate each using the values given.**

7)  $2 + z - y$ ; use  $y = \frac{2}{5}$ , and  $z = 1\frac{1}{2}$

8)  $b - \frac{b}{a}$ ; use  $a = 2\frac{5}{6}$ , and  $b = \frac{2}{5}$

**Simplify each expression.**

9)  $-4(n + 7) - 8$

10)  $-7(3x - 2) - 8x$

**Solve each equation.**

11)  $-\frac{7}{12} = \frac{r}{12}$

12)  $\frac{x}{11} = -2$

$$13) 13x = 91$$

$$14) n - 18 = -11$$

$$15) -2 = \frac{k+6}{5}$$

$$16) 7(-8 + n) = -35$$

$$17) -6 = 1 + n$$

$$18) 93 = 2 + 7p$$

$$19) -1 + \frac{x}{15} = -2$$

$$20) -98 = -7(n + 8)$$

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

21)  $ac = r - d$ , for  $a$

22)  $kx = w + v$ , for  $x$

**Solve each proportion.**

23)  $\frac{4}{8} = \frac{8}{x}$

24)  $\frac{10}{p} = \frac{5}{4}$

25)  $\frac{7}{9} = \frac{2}{n}$

26)  $\frac{k}{5.436} = \frac{3.5}{2.5}$

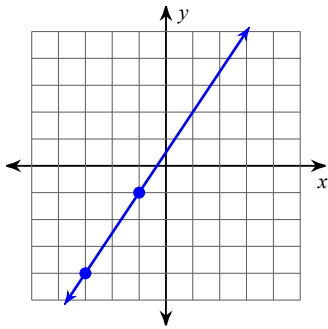
**Solve each problem.**

27) What percent of 45 is 22?

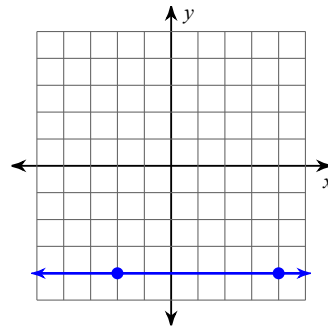
28) 20 is what percent of 105.1?

**Find the slope of each line.**

29)



30)



31)  $y = -\frac{8}{5}x + 5$

32)  $x - 4y = 0$

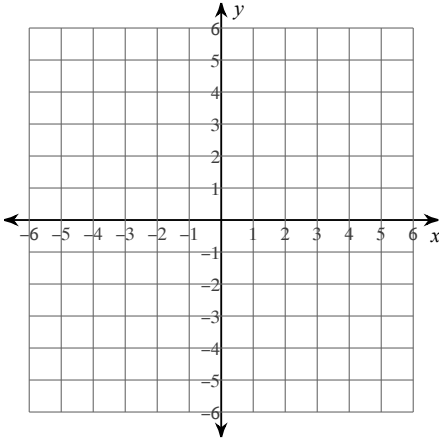
**Find the slope of the line through each pair of points.**

33)  $(6, -20), (-14, -10)$

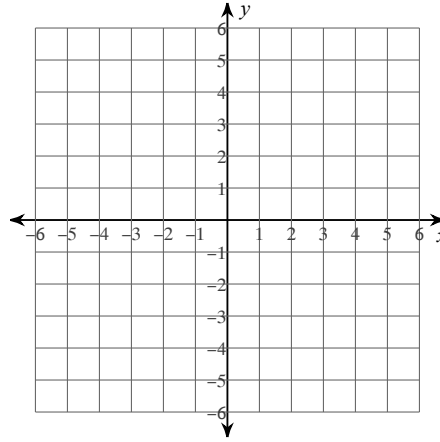
34)  $(-20, 17), (19, -1)$

Sketch the graph of each line.

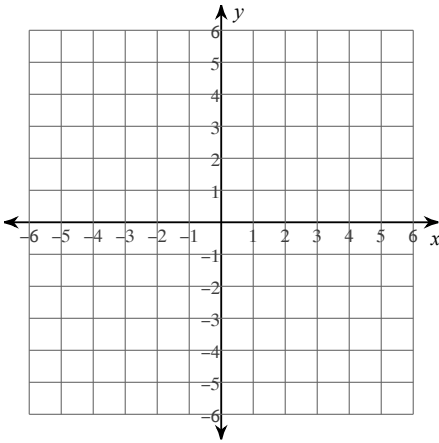
35)  $2x - y = 1$



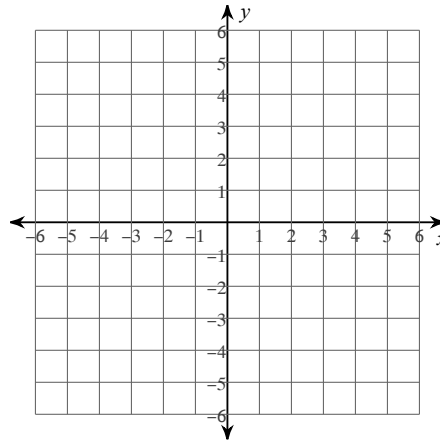
36)  $2x - 3y = 12$



37)  $y = -3$

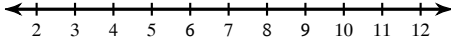


38)  $x$ -intercept =  $-5$ ,  $y$ -intercept =  $-3$

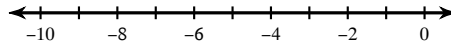


Solve each inequality and graph its solution.

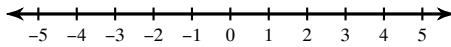
39)  $-7 \leq -16 + v$



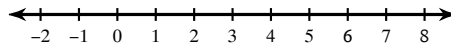
40)  $-\frac{3}{8} \geq \frac{x}{16}$



41)  $\frac{x-2}{4} \leq -1$



42)  $-1 > \frac{n-6}{6}$



Simplify.

43)  $\sqrt{384n}$

44)  $\sqrt{32b}$

45)  $\sqrt{6}(\sqrt{2} + \sqrt{3})$

46)  $\frac{3}{\sqrt{5} - 2}$

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

47)  $(-3, -5), (5, -7)$

48)  $(-4, 2), (0, 3)$

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

49)  $(-3, -7), (-10, 6)$

50)  $(9, 10), (2, 10)$

**Solve each system by substitution.**

51) 
$$\begin{aligned} 3x + 3y &= -21 \\ y &= 1 \end{aligned}$$

52) 
$$\begin{aligned} x - 4y &= -14 \\ -7x - 2y &= -22 \end{aligned}$$