

## Summer Packet

Date \_\_\_\_\_

**Evaluate each expression.**

1)  $(-7) + (-4) - 10 - 2$

2)  $(-7)(9 + 1) - (-8)$

3)  $\frac{6 \cdot 2 + 4}{-4} - 4$

4)  $-\frac{6 \cdot 2}{3} - 7 - 2$

5)  $\frac{(-23) + (-2) + 1}{2^2}$

6)  $\frac{2 \cdot 2}{(-1) + 3 - 3}$

**Evaluate each using the values given.**

7)  $\frac{p - m}{4} \times \frac{p}{5}$ ; use  $m = 3$ , and  $p = -5$

8)  $\frac{y + y}{4} + 3x$ ; use  $x = -3$ , and  $y = 4$

**Simplify each expression.**

9)  $-8 - 3(7 - 6a)$

10)  $n - (n + 7)$

11)  $-k + 4(k - 1)$

12)  $-8(6n + 2) + n$

$$13) 5(m - 7) - 5(-7m + 7)$$

$$14) -5(1 + 7x) - 5x(7 + 3x)$$

**Solve each equation.**

$$15) -9 = 3n - 5 - 5n$$

$$16) 4 = x - 6 - 6x$$

$$17) -39 + 7m = -4 - 5(7m + 7)$$

$$18) 7(6k + 1) = 7 + 8k$$

$$19) 8b + 6(5b - 8) = 12 + 8b$$

$$20) 8(x + 6) + 5x = -2x + 33$$

**Solve each proportion.**

$$21) \frac{12}{10} = \frac{7}{x}$$

$$22) \frac{7}{10} = \frac{9}{n}$$

$$23) \frac{10}{12} = -\frac{2}{a}$$

$$24) -\frac{n}{8} = \frac{9}{12}$$

$$25) \frac{k}{4} = \frac{5}{6}$$

$$26) \frac{8}{2} = \frac{3}{5x}$$

$$27) \frac{9}{p} = \frac{8}{10}$$

$$28) \frac{9}{6b} = \frac{2}{4}$$

**Solve each problem.**

29) 42% of what is 76.6?

30) 33% of what is 2.3?

31) 67 is what percent of 18?

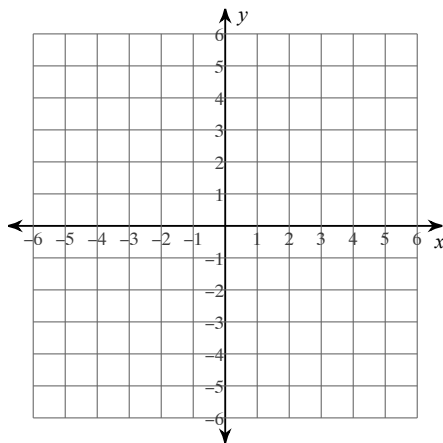
32) 50 is 19% of what?

33) What percent of 21.5 is 6?

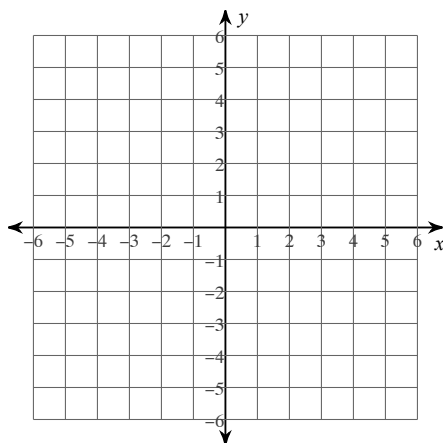
34) What is 31% of 68?

**Sketch the graph of each line.**

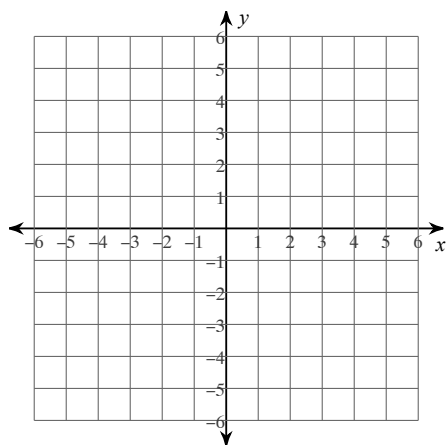
$$35) y = -3x - 3$$



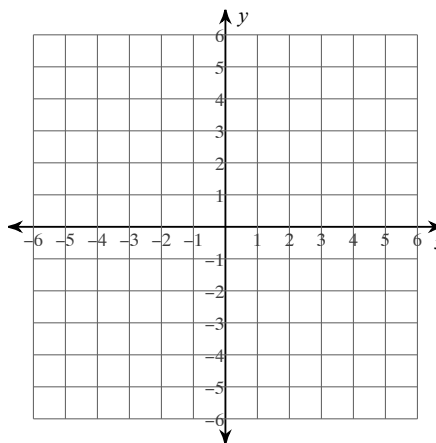
$$36) y = \frac{6}{5}x - 3$$



37)  $y = -\frac{4}{3}x - 1$

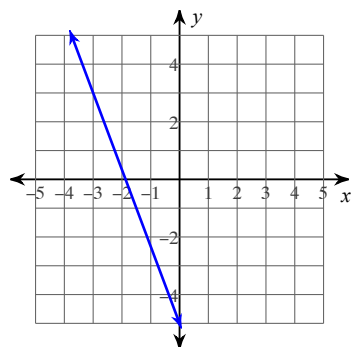


38)  $y = 3x + 3$

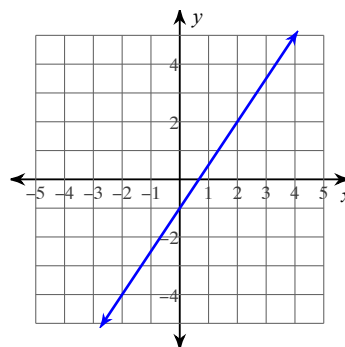


**Write the slope-intercept form of the equation of each line.**

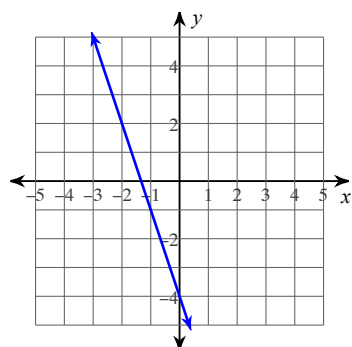
39)



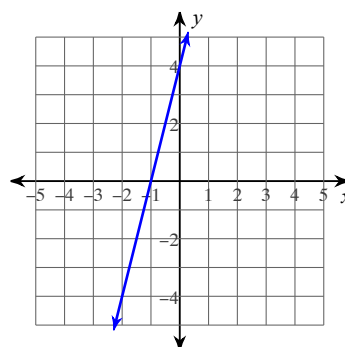
40)



41)

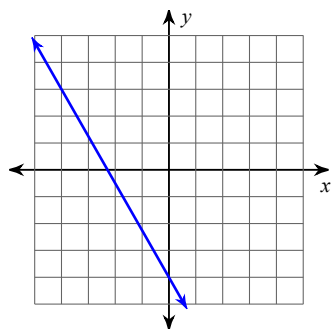


42)

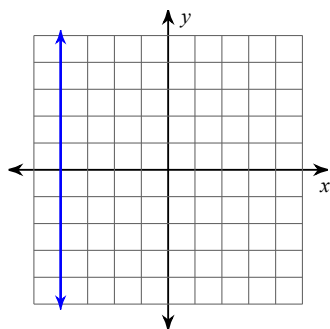


**Find the slope of each line.**

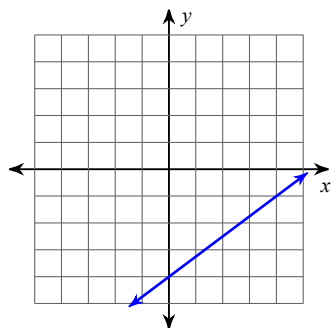
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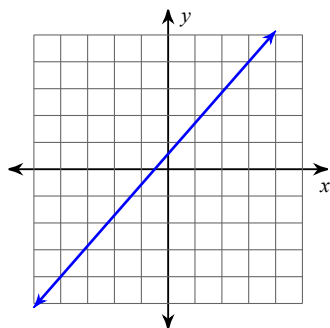
44)



45)

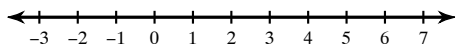


46)

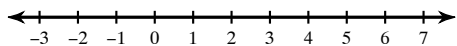


**Solve each inequality and graph its solution.**

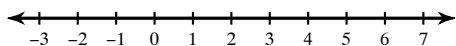
47)  $-11 \geq 5x + 6x$



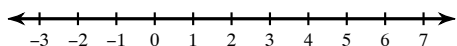
48)  $1 \leq 1 - 5x - 3x$



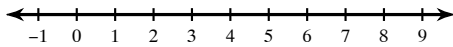
49)  $12 \geq -n + 4n$



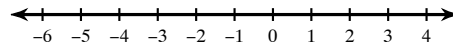
50)  $12 > -3n + 6n$



51)  $10 > 2n + 3n$



52)  $-18 > 4x + 5x$



**Write each as an algebraic expression.**

53) half of a number is 33

54) a number squared is greater than 26

55)  $n$  squared is 21

56)  $n$  to the 7th is less than 18

57) The school that Carlos goes to is selling tickets to the annual talent show. On the first day of ticket sales the school sold 4 senior citizen tickets and 6 child tickets for a total of \$52. The school took in \$40 on the second day by selling 4 senior citizen tickets and 3 child tickets. Find the price of a senior citizen ticket and the price of a child ticket.

58) The sum of two numbers is 12. Their difference is 2. Find the numbers.

59) Krystal and Sumalee each improved their yards by planting rose bushes and ornamental grass. They bought their supplies from the same store. Krystal spent \$16 on 1 rose bush and 6 bunches of ornamental grass. Sumalee spent \$28 on 4 rose bushes and 6 bunches of ornamental grass. What is the cost of one rose bush and the cost of one bunch of ornamental grass?

60) The difference of two numbers is 2. Their sum is 10. Find the numbers.