

## Sections 1.2 &amp; 1.3

**Solve each equation.**

1)  $5 = 16 + p$

2)  $4 = n + (-9)$

3)  $\frac{1632}{247} = 5\frac{13}{19} + v$

4)  $\frac{129}{28} = 2\frac{6}{7} - b$

5)  $-5 - x = -15$

6)  $\frac{v}{8} = 7$

7)  $\frac{74}{35} = m - \left( \left( -\frac{5}{7} \right) \right)$

8)  $x + \left( -\frac{35}{18} \right) = -\frac{115}{36}$

9)  $-19 + x = -3$

10)  $-8 = 5 + r$

11)  $-\frac{2}{3}n = -\frac{44}{9}$

12)  $\frac{56}{3} = \frac{7}{6}r$

**Write an equation to represent each relationship. Then solve the equation.**

- 13) the difference of a number and 8 is 38
- 14) the quotient of a number and 4 is equal to 23
- 15) Ten less than a number is equal to 12.
- 16) Two-fifths of a number is 50.
- 17) When you receive a loan to make a purchase, you often must make a down payment in cash. The amount of the loan is the purchase cost minus the down payment. Buzz made a down payment of \$1500 on a used car. He received a loan amount of \$3200. Write and solve an equation to find the cost of the car (not including interest charged on the loan).
- 18) Woody's marching band needs money to travel to a competition. Band members have raised \$560. They need to raise a total of \$1680. Write and solve an equation to find how much more they need.
- 19) Rex earns \$6.25 per hour at his after-school job. Each week he earns \$50. Write and solve an equation to show how many hours he works each week.
- 20) An 8 oz cup of coffee has about 184 mg of caffeine. This is 5 times as much caffeine as in a 12 oz caffeinated soft drink. Write and solve an equation to find about how much caffeine is in a 12 oz caffeinated soft drink. Round your answer to the nearest whole number.