

Transforming Equations-Single Step Equations

$$(1.1) a - 11 = 15$$

$$(1.2) x + 18 = 31$$

$$(1.3) c - 30 = -19$$

$$(1.4) x + 90 = -55$$

$$(1.5) -18 + h = -38$$

$$(1.6) -19 + a = -23$$

$$(1.7) x - 8 = |25|$$

$$(1.8) f + 7 = |2-9|$$

$$(1.9) g - 6 = |8 - 14|$$

$$(1.10) -x + 9 = 7$$

$$(1.11) -7 - h = 8$$

$$(1.12) (m + 3) + 6 = 5$$

$$(1.13) (a - 3) + 19 = 125$$

$$(1.14) 2 - (3 + y) = 6$$

$$(1.15) -2 - (4 - w) = 1$$

$$(1.16) 7 - (1 - q) = 11$$

$$(1.17) 4 - (1 + x) = 5$$

$$(1.18) |y| - 2 = 8$$

$$(1.19) -7 + |x| = 0$$

$$(1.20) |x| + (-2) = 4$$

$$(1.21) -5 + |r| = 0$$

$$(1.22) -3 + (15 - |a|) = 12$$

$$(1.23) 7 - (3 - |m|) = 8$$

$$(1.24) 6 + |x| = 2$$

$$(1.25) -(|x| + 2) = -6$$

Write an equation based on the facts of each problem. Then, solve the equation and answer the question posed in the problem.

1. Nine more than a number is 58. What is the number?
2. Eighteen less than a number is 46. What is the number?
3. A number is decreased by 8 is -31. What is the number?
4. A number increased by 13 is -11. What is the number?
5. A basketball player scored 56 points in a game. This was 12 points more than he had scored in an earlier game. What was his score in the earlier game?
6. The Busy Bee Diner charges 65 cents for a glass of juice. A customer paid \$2.25 for a sandwich and a glass of juice. How much was the sandwich?
7. A discount store chain hired 130 new employees during a year in which 27 employees retired and 59 left for other reasons. If there were 498 employees in the chain at the end of the year, how many were there at the beginning?
8. During one day on the stock market, an investor lost \$2500 on one stock, but gained \$1700 on another. At the end of trading that day, the investor's holdings were worth \$52,400. What were they worth when the market opened that day?
9. Rona paid \$3.23 for 2 tubes of toothpaste. She paid the regular price of \$1.79 for one tube, but bought the other one for less, because she used a "cents-off" coupon. What was the coupon worth?
10. During a sale, Art bought a tire pump for \$4.69. A week later, he returned to the store to buy another pump. However, because the sale was over, he had to pay the regular price for the second one. If the two pumps cost Art \$10.64, by how much had the store reduced the price for the sale?

Transforming Multiplication/Division Problems

$$(1.1) \quad 36x = 72$$

$$(1.2) \quad -8a = 32$$

$$(1.3) \quad -\frac{1}{10}r = 5$$

$$(1.4) \quad -7 = -7p$$

$$(1.5) \quad -11f = -88$$

$$(1.6) \quad -1 = \frac{n}{13}$$

$$(1.7) \quad -0.1x = -3$$

$$(1.8) \quad 0.01y = -8$$

$$(1.9) \quad 4 = -\frac{u}{3}$$

$$(1.10) \quad \frac{1}{3}x = 2\frac{1}{3}$$

$$(1.11) \quad \frac{1}{2}g = 3\frac{1}{2}$$

$$(1.12) \quad -1 = 2.5x$$

$$(1.13) \quad -2|x| = -30$$

$$(1.14) \quad \frac{|x|}{7} = 42$$

$$(1.15) \quad 9 - \frac{|x|}{2} = 1$$

$$(1.16) \quad 10 - 3|b| = 1$$

$$(1.17) \quad -\frac{1}{3}y = 3\frac{2}{3}$$

$$(1.18) \quad \frac{1}{5}a = 6\frac{4}{5}$$

$$(1.19) \quad -35 = \frac{7}{d}$$

$$(1.20) \quad 99 = \frac{3}{x}$$

Write an equation based on the facts of each problem. Then solve the equation and answer the question posed in the problem.

1. Negative eight times a number is 376. What is the number?
2. Twelve times a number is -564. What is the number?
3. Daniel paid \$147 for six theater tickets. How much did each ticket cost?
4. The perimeter of a square lot is 156 m. How long is each side of the lot?
5. A park in the shape of an equilateral triangle (a triangle with all sides equal) has a perimeter of 495 m. How long is each side of the park?
6. Twelve-year-old Lola is one fourth as old as her Uncle Hector. How old is Hector?
7. A police helicopter clocked an automobile for 10 seconds over a stretch of highway one fifth of a mile long. At what rate was the automobile traveling in miles per a. second? b. hour?
8. How many hard-cover copies of a book selling for \$16.50 each must a dealer sell to take in as much money as for 30 paperback copies of the book selling at \$4.95 each?