

Chapter 4 Assignment

1. Solve for the unknown variable and check. Show your work.

a. $y + 8 = 21$

b. $y - 13 = 17$

c. $-y - 3 = -15$

d. $3y = 36$

e. $-7y = 35$

f. $\frac{y}{4} = 16$

g. $\frac{y}{-4} = -2$

h. $2y + 7 = 33$

i. $-3y - 18 = 27$

j. $\frac{y}{6} + 12 = -2$

k. $2(y + 5) = 18$

l. $-3(y - 4) = -8$

m. $3y - 8 = -2y + 12$

n. $2(y + 7) = 5(y + 2) - 8$

o. $7 = \frac{3y + 2}{5}$

2. Rachel sells bags of popcorn at the Toronto Maple Leafs hockey games. She is paid \$12.50 per hour and 30 cents for each bag of popcorn she sells.
 - a. If Rachel worked four hours and sold 73 bags of popcorn, how much money would she earn? Show your work.
 - b. If Rachel earned \$105.00 and she worked 6 hours, how many bags of popcorn did she sell? Show your work.
3. For each one of the following word problems you must have let statements with one variable, an equation, solution of the variable and there statements which answer the question.
 - a. Allie is five years younger than Liam. If the sum of their ages is 51, how old is each one?
 - b. The sum of three consecutive integers is 168. What are the numbers?
 - c. Avery and Taylor had a bouncing contest. If Avery bounced seven less than twice the bounces of Taylor and their combined bounces totalled 383, how many times did each one bounce?

4. Two friends are collecting pop-can tabs. Natasha has 250 more pop-tabs than Kristin. Together they have collected 88 pop-can tabs. How many pop-can tabs has each friend collected?
5. Anoja, Amani, and Azra are three freidns who each have part-time jobs. Last week, Anoja earned twice as much money as Azra, while Amani earned \$25 more than Anoja. The total earnings of the three friends last week was \$450. How much money did each of them earn last week?
6. John has \$23.65 to spend on a book and magazine. The book costs \$5.95. The magazines costs \$2.95 each.
- a. Write an equation that models the number of magazines that John can afford.
- b. Solve the equation.

7. The total of three cousins' ages is 48. Salley is half as old as Hawkins and 4 years older than Dale. How old are the cousins?

8. Kelly sells T-Shirts at a rock concert. She earns \$8.00/h, plus \$0.50 for each T-shirt she sells.

a. How much will Kelly earn in a 4 hour shift if she sells 35 T-shirts?

b. How many T-shirts must Kelly sell to earn \$80 in a 6 hour shift?