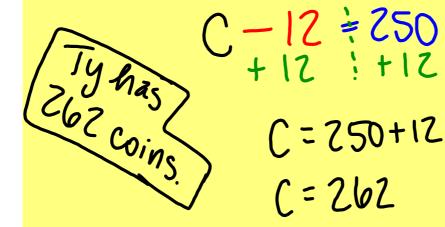## 5.4 Write and Solve Equations

1.) Josiah and Ty collect coins. Josiah has 250 coins. He has 12 fewer than Ty. How many coins does Ty have?

Subtraction

Let c be the coins that Ty has.

$$C - 12 = 250$$
$$+12 \quad +12$$

Ty has 262 coins.

$$C = 250 + 12$$
$$C = 262$$

2.) Ali bags walnuts for a food sale. She puts 100 walnuts in a bag.

a.) How many walnuts will be in 6 bags?

$$6 \cdot 100 = \boxed{600}$$

b.) How many walnuts will be in 10 bags?

$$10 \cdot 100 = \boxed{1000}$$

3.) Ava works with an organization to clean up a local beach. She collects 480 pieces of trash in the morning. Then she collects 70 more pieces of trash in the afternoon than she collected in the morning. How many pieces of trash did Ava collect in all?

Let n be how many pieces of trash Ava picked in all.

$$480 + 70 + 480 = n$$

$$\boxed{1030 = n}$$

4.) Lily has 45 feet of fencing. Her neighbor gives her 22 feet of fencing. She needs a total of 78 feet of fencing to enclose her garden. How many more feet of fencing does she need?

Let f be how many more feet of fencing Lily needs.

$$(45 + 22) + f = 78$$

$$67 + f = 78$$
$$-67 \qquad -67$$

$$f = 78 - 67$$

$$\boxed{f = 11 \text{ ft}}$$

5.) There are 29 open spaces on the <u>first floor of</u> a parking garage. There are 12 more open spaces (on the first floor) than on the second floor. How many spaces are open on the second floor?

$\mathcal{L}$et i be the spaces open on the 2nd floor.

$$29 = i + 12$$
$$-12 \qquad -12$$
$$29 - 12 = i$$
$$\boxed{17 = i}$$

6.) Twelve tickets to the state football championship game cost \$72. How much does one ticket to the game cost?

$\mathcal{L}$et t be the cost of 1 ticket.

$$12t = 72$$
$$\div 12 \qquad \div 12$$
$$t = 72 \div 12$$
$$\boxed{t = \$6}$$