

Name:

Date:

Roster #:

Problem Set Solutions

for G7M4L1-4

1. Represent each situation using an equation. Check your answer with a visual model or numeric method.

a. What number is 40% of 90?

$$n = 0.40(90)$$

$$n = 36$$

b. What number is 45% of 90?

$$n = 0.45(90)$$

$$n = 40.5$$

c. 27 is 30% of what number?

$$27 = 0.3n$$

$$\frac{27}{0.3} = 1n$$

$$90 = n$$

d. 18 is 30% of what number?

$$0.30n = 18$$

$$1n = \frac{18}{0.3}$$

$$n = 60$$

e. 25.5 is what percent of 85?

$$25.5 = p(85)$$

$$\frac{25.5}{85} = 1p$$

$$0.3 = p$$

$$0.3 = \frac{30}{100} = 30\%$$

f. 21 is what percent of 60?

$$21 = p(60)$$

$$\frac{21}{60} = 1p$$

$$0.35 = p$$

$$0.35 = \frac{35}{100} = 35\%$$

2. 40% of the students on a field trip love the museum. If there are 20 students on the field trip, how many love the museum?

Let s represent the number of students who love the museum.

$$s = 0.40(20)$$

$$s = 8$$

Therefore, 8 students love the museum.

3. Maya spent 40% of her savings to pay for a bicycle that cost her \$85.

a. How much money was in her savings to begin with?

Let s represent the unknown amount of money in Maya's savings.

$$85 = 0.4s$$

$$212.5 = s$$

Maya originally had \$212.50 in her savings.

b. How much money does she have left in her savings after buying the bicycle?

$$\$212.50 - \$85.00 = \$127.50$$

She has \$127.50 left in her savings after buying the bicycle.

4. Curtis threw 15 darts at a dartboard. 40% of his darts hit the bull's-eye. How many darts did not hit the bull's-eye?

Let d represent the number of darts that hit the bull's-eye.

$$d = 0.4(15)$$

$$d = 6$$

$$6 \text{ darts hit the bull's-eye. } 15 - 6 = 9$$

Therefore, 9 darts did not hit the bull's-eye.

5. A tool set is on sale for \$424.15. The original price of the tool set was \$499.00. What percent of the original price is the sale price?

Let p represent the unknown percent.

$$424.15 = p(499)$$

$$0.85 = p$$

The sale price is 85% of the original price.