

# 6<sup>th</sup> Grade Unit 4: Lesson 18-1

## Check Your Understanding (p. 226):

1. For Try These C, division was needed to work backwards from the total number of frames to the number of days in which the film was made, while for Try These B, multiplication was needed to find the total number of frames at a given rate.

2. Answers will vary. Sample answer: You multiply the number of meters of film by the conversion factor

$$100 \text{ cm} = 1 \text{ m: } 7 \cancel{\text{ m}} \times \frac{100 \text{ cm}}{1 \cancel{\text{ m}}} =$$

700 cm. The number of centimeters is 700.

3.  $1\frac{4}{5} \text{ lb: } 1 \text{ lb} = 16 \text{ oz, } 28\frac{4}{5} \text{ oz} \div 16 \text{ oz}$   
 $\text{per lb} = \frac{144}{5} \div \frac{16}{1} = 1\frac{4}{5}$

## Lesson 18-1 Practice (p. 226):

4. a. 12 months = 1 year  
 b. \$3,907.08;

$$\frac{\$46,885}{\text{year}} \times \frac{1 \text{ year}}{12 \text{ months}} = \frac{\$46,885 \cancel{\text{ year}}}{12 \cancel{\text{ year}} \text{ month}} = \frac{\$3,907.08}{1 \text{ month}}$$

5. a. 1 day = 24 hours  
 b. 60 hours;

$$2.5 \text{ days} \times \frac{24 \text{ hours}}{1 \text{ day}} = \frac{60 \cancel{\text{ days}} \text{ hours}}{1 \cancel{\text{ day}}} = 60 \text{ hours}$$

6. always; Answers may vary. Sample answer: The numerator and the denominator are equivalent because they name the same amount. For example, in the conversion factor

$\frac{1 \text{ week}}{7 \text{ days}}$ , the numerator and denominator name the same amount of time.

7. Answers will vary. Accept any well-thought-out estimation that is close to the exact answer of 1,680 frames. Sample: 1 frame per 30 sec. is 2 frames per minute. 14 hr is about 15 hr, and 60 min per hr  $\times$  15 hr = 900 min. 900 min  $\times$  2 frames per min = 1800 frames. Because 900 is an overestimate, the actual number will be smaller.