

Translating for Success

1. *Gas Mileage.* Art filled his SUV's gas tank and noted that the odometer read 38,271.8 mi. At the next filling, the odometer read 38,677.92 mi. It took 28.4 gal to fill the tank. How many miles per gallon did the SUV get?

2. *Dimensions of a Parking Lot.* Seals' parking lot is a rectangle that measures 85.2 ft by 52.3 ft. What is the area of the parking lot?

3. *Game Snacks.* Three students pay \$18.40 for snacks at a football game. What is each person's share?

4. *Electrical Wiring.* An electrician needs 1314 ft of wiring cut into $2\frac{1}{2}$ -ft pieces. How many pieces will she have?

5. *College Tuition.* Wayne needs \$4638 for the fall semester's tuition. On the day of registration, he had only \$3092. How much does he need to borrow?

The goal of these matching questions is to practice step (2), *Translate*, of the problem-solving process. Translate each word problem to an equation and select a correct translation from equations A–O.

A. $2\frac{1}{2} \cdot n = 1314$

B. $18.4 \times 1.87 = n$

C. $n = 85.2 \times 52.3$

D. $19 - (-4) = n$

E. $3 \times 18.40 = n$

F. $2\frac{1}{2} \cdot 1314 = n$

G. $3092 + n = 4638$

H. $18.4 \cdot n = 1.87$

I. $\frac{406.12}{28.4} = n$

J. $52.3 \cdot n = 85.2$

K. $n = 19 + (-4)$

L. $52.3 + n = 85.2$

M. $3092 + 4638 = n$

N. $3 \cdot n = 18.40$

O. $85.2 + 52.3 = n$

Answers on page A-14

6. *Cost of Gasoline.* What is the cost, in dollars, of 18.4 gal of gasoline at \$1.87 per gallon?

7. *Temperature.* At noon, the temperature in Pierre was 19°F . At midnight, the temperature had fallen to -4°F . By how many degrees had the temperature fallen?

8. *Acres Planted.* This season Sam planted 85.2 acres of corn and 52.3 acres of soybeans. Find the total number of acres that he planted.

9. *Amount Inherited.* Tara inherited $2\frac{1}{2}$ times as much as her cousin. Her cousin received \$1314. How much did Tara receive?

10. *Travel Funds.* The athletic department needs travel funds of \$4638 for the tennis team and \$3092 for the golf team. What is the total amount needed for travel?