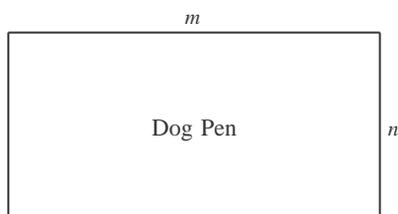# 1-4 Word Problem Practice

The Distributive Property

1. **OPERA** Mr. Delong's drama class is planning a field trip to see Mozart's famous opera *Don Giovanni*. Tickets cost $39 each, and there are 23 students and 2 teachers going on the field trip. Write and evaluate an expression to find the group's total ticket cost.

2. **SALARY** In a recent year, the median salary for an engineer in the United States was $55,000 and the median salary for a computer programmer was $52,000. Write and evaluate an expression to estimate the total cost for a business to employ an engineer and a programmer for 5 years.

3. **COSTUMES** Isabella's ballet class is performing a spring recital for which they need butterfly costumes. Each butterfly costume is made from $3\frac{3}{5}$ yards of fabric. Use the Distributive Property to find the number of yards of fabric needed for 5 costumes. (*Hint:* a mixed number can be written as the sum of an integer and a fraction.)

4. **FENCES** Demonstrate the Distributive Property by writing two equivalent expressions to represent the perimeter of the fenced dog pen below.

5. **MENTAL MATH** During a math facts speed contest, Jamal calculated the following expression faster than anyone else in his class.

$$197 \times 4$$

When classmates asked him how he was able to answer so quickly, he told them he used the Distributive Property to think of the problem differently. Write and evaluate an expression using the Distributive Property that would help Jamal perform the calculation quickly.

6. **INVESTMENTS** Letisha and Noel each opened a checking account, a savings account, and a college fund. The chart below shows the amounts that they deposited into each account.

	Checking	Savings	College
Letisha	$125	$75	$50
Noel	$250	$50	$50

a. If Noel used only $50 bills when he deposited the money to open his accounts, how many $50 bills did he deposit?

b. If all accounts earn 1.5% interest per year and no further deposits are made, how much interest will Letisha have earned one year after her accounts were opened?