

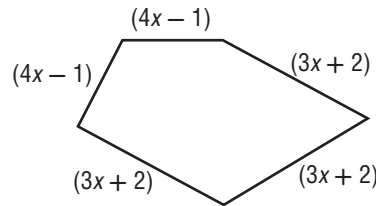
# Lesson 6 Problem-Solving Practice

## Add Linear Expressions

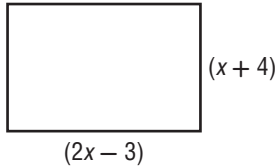
**1. SWIMMING** The table gives the number of laps Pragitha swam each week. Write an expression for the total number of laps she swam all four weeks.

Week	1	2	3	4
Laps	$x + 2$	$3x$	$2x + 1$	$4x - 6$

**2. GEOMETRY** Write an expression for the perimeter of this pentagon. If the perimeter is 157 units, find  $x$ .



**3. BEDROOM** Write an expression for the perimeter of the bedroom shown below.



**4. HOCKEY** The table shows the number of goals scored during each game. Write an expression for the total number of goals scored in these 3 games.

Game	1	2	3
Goals	$2x$	$x + 2$	$3x - 1$

**5. FLIGHT** An airline charges  $\$(22x + 20)$  for a ticket,  $\$(x + 1)$  to check a bag,  $\$2x$  for food, and  $\$(15x - 16)$  to upgrade to first class. Write an expression to represent the total cost of flying first class, checking a bag, and buying food on the plane.

**6. FOOD** Loy paid  $\$(4x + 7)$  for a beef roast and  $\$(2x - 5)$  for five pounds of potatoes. Write an expression for the total amount he spent on food.

# Lesson 7 Problem-Solving Practice

## Subtract Linear Expressions

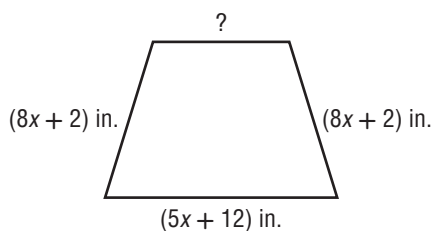
1. **GASOLINE** The table gives the cost of a gallon of gasoline at two stations. How much more does gasoline cost at Gas For Less than at Cut-Rate?

<b>Cut-Rate</b>	$-2x + 3.5$
<b>Gas for Less</b>	$x - 1.2$

2. **GEOMETRY** What is the difference in the areas of the polygons shown?



3. **PLACEMATS** Find the missing side of the placemat shown if the perimeter is  $28x + 11$  inches.



4. **SHOES** Uthara has  $6x - 7$  pairs of shoes while China has  $2x + 3$  pairs of shoes. How many more pairs of shoes does Uthara have than China?

5. **INSECTS** A grasshopper has a length of  $(5x - 2)$  inches. A spider has a length of  $(2x - 1)$  inches. How much longer is the grasshopper?

6. **PANTHERS** Two Florida panthers were weighed. One weighs  $6x + 21$  pounds and the two together weigh  $14x + 11$  pounds. How much does the other panther weigh alone?