

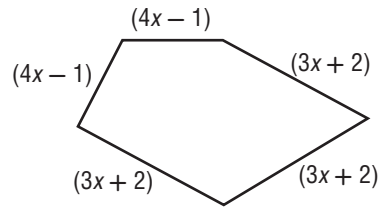
# Lesson 6 Problem-Solving Practice

## Add Linear Expressions

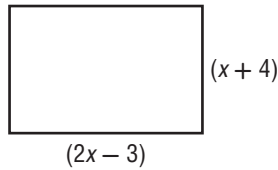
- 1. SWIMMING** The table gives the number of laps Pragitha swam each week. Write an expression for the total number of laps she swam all four weeks.  **$10x - 3$**

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  $x$ .  
 **$17x + 4; 9$**



- 3. BEDROOM** Write an expression for the perimeter of the bedroom shown below.  **$6x + 2$**



- 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.  **$6x + 1$**

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.  
 **$\$(40x + 5)$**

- 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.  
 **$\$(6x + 2)$**

# Lesson 7 Problem-Solving Practice

## Subtract Linear Expressions

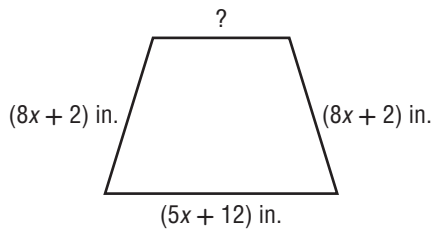
- 1. GASOLINE** The table gives the cost of a gallon of gasoline at two stations. How much more does gasoline cost at Gas For Less than at Cut-Rate?  
 **$3x - 4.7$**

<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?  
 **$4x - 11$**



- 3. PLACEMATS** Find the missing side of the placemat shown if the perimeter is  $28x + 11$  inches.  **$(7x - 5)$  in.**



- 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?  
 **$4x - 4$**

- 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?  
 **$(3x - 1)$  in.**

- 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?  
 **$8x - 10$  pounds**