

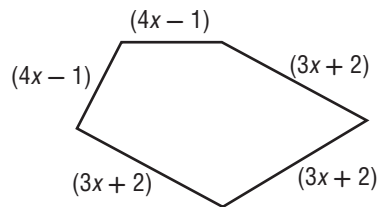
Lesson 6 Problem-Solving Practice

Add Linear Expressions

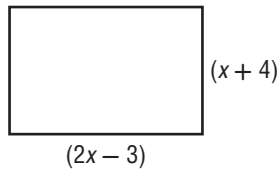
- 1. SWIMMING** The table gives the number of laps Pragitha swam each week. Write an expression for the total number of laps she swam all four weeks. **$10x - 3$**

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 6 Homework Practice

Add Linear Expressions

Add. Use models if needed.

1. $(9x + 7) + (x + 3)$

$10x + 10$

2. $(-4x + 6) + (x - 5)$

3. $(-3x + 15) + (-3x + 2)$

$-6x + 17$

4. $(-2x + 10) + (-8x - 1)$

5. $(-2x + 4) + (x - 11)$

$-x - 7$

6. $(8x + 9) + (-6x - 1)$

7. $(-6x + 3) + (5x - 4)$

$-x - 1$

8. $(2x - 4) + (-x + 9)$

9. $(-8x + 2) + (-5x + 7)$

$-13x + 9$

10. $(-4x - 2) + (13x + 1)$

11. $(-7x - 14) + (x - 6)$

$-6x - 20$

12. $(12x + 3) + (-7x + 5)$

13. $(4x - 1) + (-5x + 17)$

$-x + 16$

14. $(-9x + 2) + (-8x - 2)$

15. $(1.3x + 2.4) + (-6.1x - 3.2)$

$-4.8x - 0.8$

16. $(0.5x - 0.6) + (0.75x - 0.1)$

17. **GEOMETRY** A rectangle has side lengths of $(3x + 6)$ inches and $(2x - 4)$ inches. Write an expression to represent the perimeter of the rectangle. Then find the value of x if the perimeter is 94 inches. **$10x + 4$; 9**

18. **CRUISE SHIPS** The table shows the number of cruise ships in a harbor on various days.

Day	Monday	Tuesday	Wednesday	Thursday	Friday
Number	$x - 4$	$x + 9$	$2x$	$3x - 7$	4

- a. Write an expression for the total number of cruise ships in the harbor on Monday and Tuesday.
- b. Write an expression for the total number of cruise ships in the harbor on all 5 days.