

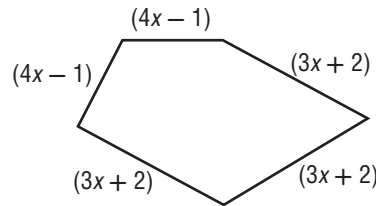
Lesson 6 Problem-Solving Practice

Add Linear Expressions

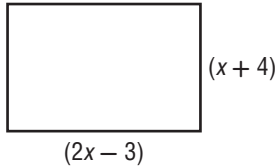
1. SWIMMING The table gives the number of laps Pragitha swam each week. Write an expression for the total number of laps she swam all four weeks.

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 6 Homework Practice

Add Linear Expressions

Add. Use models if needed.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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.

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.