Algebraic expressions can be represented by the perimeters of algebra tiles (rectangles and squares) and combinations of algebra tiles. The dimensions of each tile are shown along its sides and the tile is named by its area as shown on the tile itself in the figures at right. When using the tiles, perimeter is the distance around the exterior of a figure. For additional information, see the Math Notes box in Lesson 6.2.4 of the Core Connections, Course 1 text.

Example 1

\[ P = 6x + 4 \text{ units} \]

Example 2

\[ P = 6x + 8 \text{ units} \]
Problems

Determine the perimeter of each figure.

1. \[ x^2 \quad x \quad x \]
2. \[ x^2 \quad x \]
3. \[ x \quad x \quad x \quad x \]
4. \[ x^2 \quad \]
5. \[ x^2 \quad x \]
6. \[ x^2 \quad x \]
7. \[ x^2 \quad x \]
8. \[ x \]

Answers

1. \[ 4x + 4 \text{ un.} \]
2. \[ 4x + 4 \text{ un.} \]
3. \[ 2x + 8 \text{ un.} \]
4. \[ 4x + 6 \text{ un.} \]
5. \[ 4x + 4 \text{ un.} \]
6. \[ 4x + 2 \text{ un.} \]
7. \[ 4x + 4 \text{ un.} \]
8. \[ 2x + 4 \text{ un.} \]