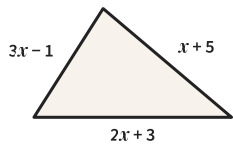


Perimeter and collecting like terms

ANSWERS

1

Find an expression for the perimeter.
Simplify your answer.

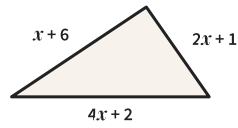


$$\begin{aligned} x \text{ terms } & 2x + x + 3x = 6x \\ \text{numbers} & 3 + 5 + (-1) = 7 \\ \text{Perimeter} & = 6x + 7 \end{aligned}$$

Answer 6x + 7

2

Find an expression for the perimeter.
Simplify your answer.

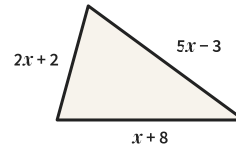


$$\begin{aligned} x \text{ terms } & 4x + 2x + x = 7x \\ \text{numbers} & 2 + 1 + 6 = 9 \\ \text{Perimeter} & = 7x + 9 \end{aligned}$$

Answer 7x + 9

3

Find an expression for the perimeter.
Simplify your answer.

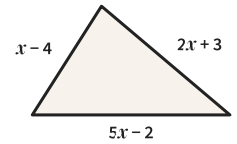


$$\begin{aligned} x \text{ terms } & x + 5x + 2x = 8x \\ \text{numbers} & 8 + (-3) + 2 = 7 \\ \text{Perimeter} & = 8x + 7 \end{aligned}$$

Answer 8x + 7

4

Find an expression for the perimeter.
Simplify your answer.

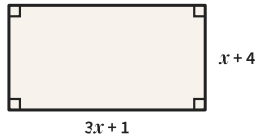


$$\begin{aligned} \text{Perimeter} & = 8x - 3 \end{aligned}$$

Answer 8x - 3

5

This is a rectangle. Find an expression for its perimeter.

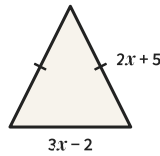


$$2(3x + 1) + 2(x + 4)$$

Answer 8x + 10

6

The two sides with a mark are equal.
Find an expression for the perimeter.

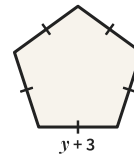


$$3x - 2 + 2(2x + 5)$$

Answer 7x + 8

7

This is a regular pentagon.
Find an expression for its perimeter.

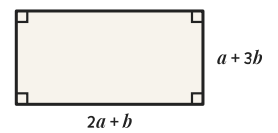


$$5 \times (y + 3)$$

Answer 5y + 15

8

This is a rectangle. Find an expression for its perimeter.



$$2(2a + b) + 2(a + 3b)$$

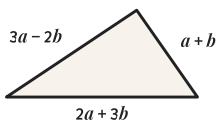
Answer 6a + 8b

Perimeter and collecting like terms further practice

ANSWERS

9

Find an expression for the perimeter.
Simplify your answer.



$$a \text{ terms, then } b \text{ terms}$$

Answer 6a + 2b

10

This is a rectangle. Find an expression for its perimeter. Are x^2 and x like terms?

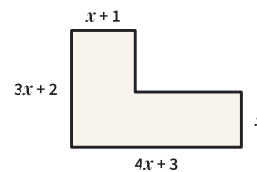


$$\text{no, so keep them apart}$$

Answer 2x^2 + 4x + 2

11

Every corner is a right angle.
Find the two missing sides, then an expression for the perimeter.

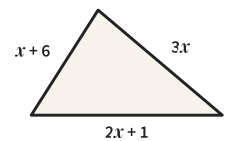


$$\text{missing sides } 3x + 2 \text{ and } 2x + 2$$

Answer 14x + 10

12

The perimeter of this triangle is 31 cm.
Find the length of each side.

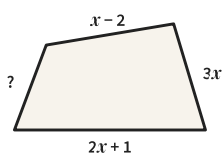


$$6x + 7 = 31, \text{ so } x = 4$$

Answer 9 cm, 12 cm, 10 cm

13

The perimeter of this shape is $9x + 4$.
Find an expression for the missing side.

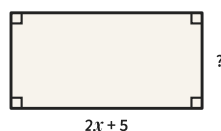


$$(9x + 4) - (6x - 1)$$

Answer 3x + 5

14

A rectangle has length $2x + 5$ and perimeter $10x + 14$. Find an expression for its width.

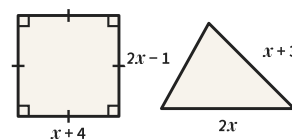


$$\text{half the perimeter is } 5x + 7$$

Answer 3x + 2

15

The square and the triangle have the same perimeter. Find x .

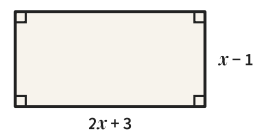


$$4x + 16 = 5x + 2$$

Answer x = 14

16

Sam says the perimeter of this rectangle is $3x + 2$. Explain the mistake and give the right perimeter.



$$\text{Sam added only two of the four sides}$$

Answer 6x + 4