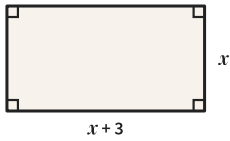


Inequalities and shapes

1

The perimeter of this rectangle is less than 30 cm. What is the largest whole number x can be?



Write it $4x+6 < 30$

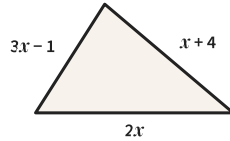
$$4x < 24$$

$$x < \boxed{}$$

Answer _____

2

The perimeter of this triangle is at most 45 cm. What is the largest whole number x can be?



Write it $6x+3 \leq 45$

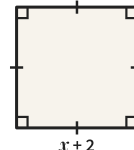
$$\boxed{} \leq \boxed{}$$

$$x \leq \boxed{}$$

Answer _____

3

The perimeter of this square is more than 40 cm. What is the smallest whole number x can be?



Write it $\boxed{} > \boxed{}$

$$\boxed{} > \boxed{}$$

$$x > \boxed{}$$

Answer _____

4

The area of this rectangle is at least 30 cm². What is the smallest whole number x can be?



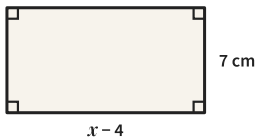
$$x-1$$

$$x \geq \boxed{}$$

Answer _____

5

The perimeter of this rectangle is less than 30 cm, and every side must be longer than 0. Which whole numbers can x be?

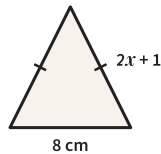


$$x-4$$

Answer _____

6

The two sides with a mark are equal. The perimeter is at most 30 cm. What is the largest whole number x can be?



$$8 \text{ cm}$$

Answer _____

7

A square has sides of x cm. A rectangle is x cm by 5 cm. The square has the larger perimeter. What is the smallest whole number x can be?

Answer _____

8

A farmer has 50 m of fence for a rectangular pen. The length is twice the width. What is the largest whole number of metres the width can be?



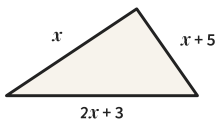
$$2w$$

Answer _____

Inequalities and shapes *further practice*

9

The perimeter of this triangle is less than 50 cm. What is the largest whole number x can be?

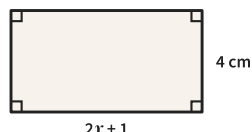


$$2x+3$$

Answer _____

10

The area of this rectangle is less than 50 cm². What is the largest whole number x can be?

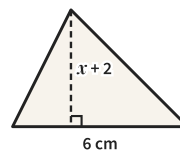


$$2x+1$$

Answer _____

11

The area of this triangle is at least 24 cm². What is the smallest whole number x can be?



$$6 \text{ cm}$$

Answer _____

12

The perimeter of a square with sides of $x+1$ cm is more than 20 cm and less than 30 cm. Which whole numbers can x be?

Answer _____

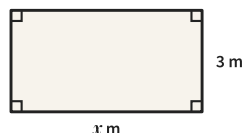
13

A square has sides of x cm. A rectangle is 4 cm by x cm. The square has the larger area. What is the smallest whole number x can be?

Answer _____

14

Carpet costs £12 per m². A room is 3 m wide and x m long. The carpet must cost no more than £200. What is the longest whole number of metres the room can be?

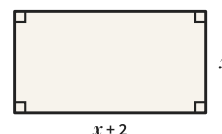


$$x \text{ m}$$

Answer _____

15

The perimeter of this rectangle is less than 40 cm and its area is more than 30 cm². Which whole numbers can x be?



$$x+2$$

Answer _____

16

Amir says if the perimeter of a square is less than 20 cm, each side is less than 20 cm. Is he right? What is the best thing to say about the sides?

Answer _____