

GCSE Maths: Perimeter and area of rectangles and squares (Higher): worksheet

GCSE Maths - Perimeter, Area and Circles - Higher - Lesson 18.1

Name: _____

Date: _____

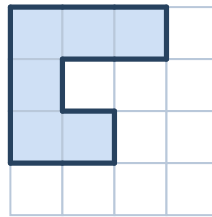
Score: _____

16 questions. Write your answers in the spaces. Answers and step-by-step help are free at websink.site/gcse/maths/ch18-perimeter-area-circles/higher/perimeter-and-area-of-rectangles-and-squares/

Exercise 18A Perimeter and area of rectangles and squares

Non-calculator

- 1 Each square on the grid has sides of 1 cm. Work out (a) the area and (b) the perimeter of the shape.



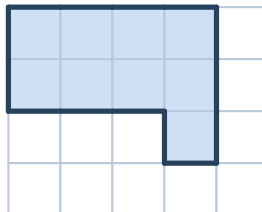
(a) area

Answer: _____

(b) perimeter

Answer: _____

- 2 Each square on the grid has sides of 1 cm. Work out (a) the area and (b) the perimeter of the shape.



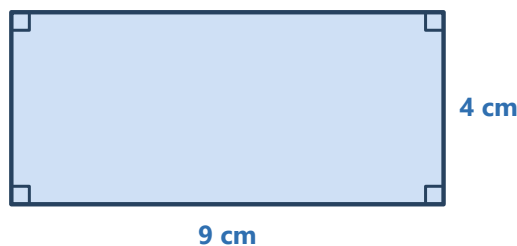
(a) area

Answer: _____

(b) perimeter

Answer: _____

- 3 Work out (a) the perimeter and (b) the area of the rectangle.



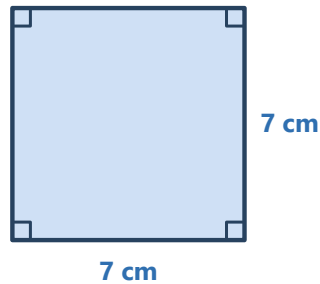
(a) perimeter

Answer:

(b) area

Answer:

- 4 A square has sides of length 7 cm. Work out (a) its perimeter and (b) its area.



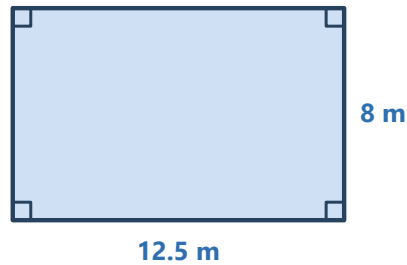
(a) perimeter

Answer:

(b) area

Answer:

- 5 Work out (a) the area and (b) the perimeter of this rectangle.



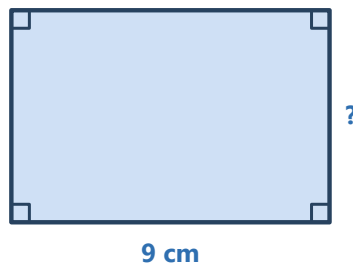
(a) area

Answer:

(b) perimeter

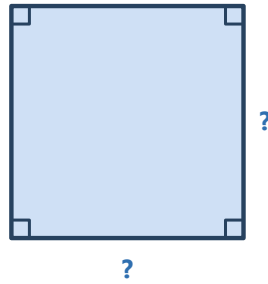
Answer:

- 6 The area of this rectangle is 54 cm^2 . Work out the width of the rectangle.



Answer:

- 7** A square has a perimeter of 36 cm. Work out (a) the length of one side and (b) the area of the square.



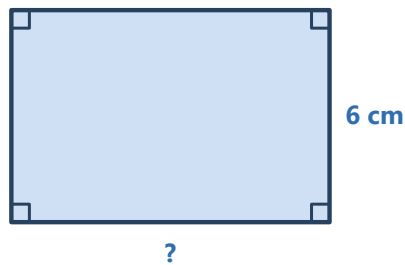
(a) side

Answer:

(b) area

Answer:

- 8** A rectangle has perimeter 30 cm and width 6 cm. Work out (a) its length and (b) its area.



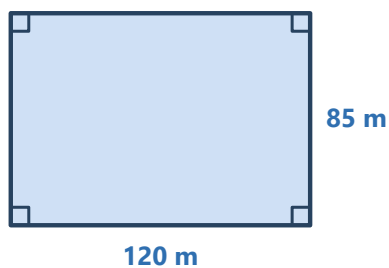
(a) length

Answer:

(b) area

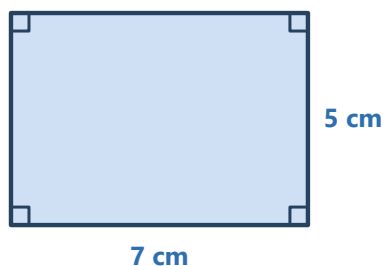
Answer:

- 9** A farmer is putting a fence all the way round a rectangular field, 120 m by 85 m. Fencing costs £6 per metre. Work out the total cost of the fencing.



Answer:

- 10** Aisha says: "A rectangle 7 cm by 5 cm has an area of 24 cm^2 because $7 + 5 + 7 + 5 = 24$." Explain her mistake and work out the correct area.



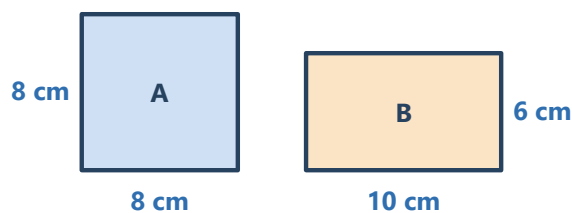
Answer:

- 11** The length of this rectangle is 3 times its width. The perimeter is 48 cm. Work out the area of the rectangle.



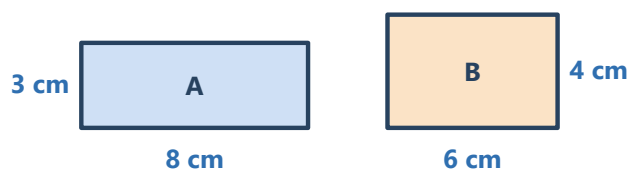
Answer:

- 12** Shape A is a square with sides 8 cm. Shape B is a rectangle with length 10 cm. They have the same perimeter. Work out the area of each shape and say which has the bigger area.



Answer:

- 13** Rectangle A is 8 cm by 3 cm. Rectangle B is 6 cm by 4 cm. Show that the two rectangles have the same area but different perimeters.



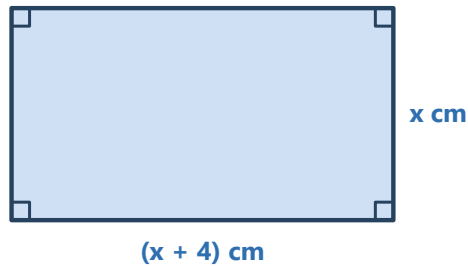
Answer:

- 14** A rectangle has an area of 36 cm^2 . Its sides are whole numbers of centimetres. Find all the possible perimeters of the rectangle. Which rectangle has the smallest perimeter?



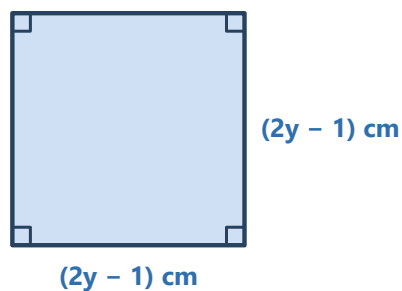
Answer:

- 15** A rectangle has length $(x + 4) \text{ cm}$ and width $x \text{ cm}$. The perimeter is 28 cm . Work out the value of x and the area of the rectangle.



Answer:

- 16** A square has sides of length $(2y - 1) \text{ cm}$. Its perimeter is 44 cm . Work out y and the area of the square.



Answer:
