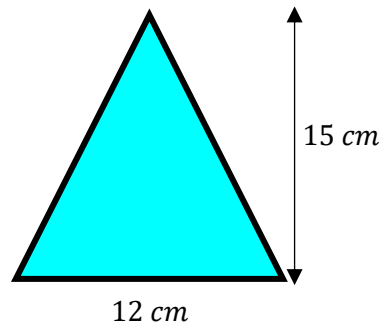


Area of a triangle

1. Work out the area of the triangle.

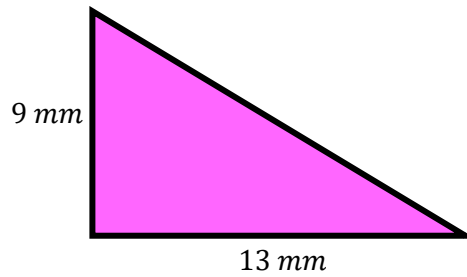
NOT DRAWN TO SCALE



$$\frac{15 \times 12}{2} = 90 \text{ cm}^2$$

(2 marks)

2. Work out the area of the triangle.



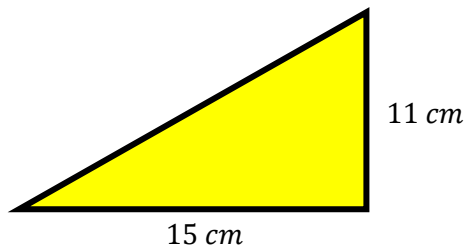
NOT DRAWN TO SCALE

$$\frac{13 \times 9}{2} = 58.5 \text{ cm}^2$$

(2 marks)

Area of a triangle

3. Calculate the volume of the triangle.

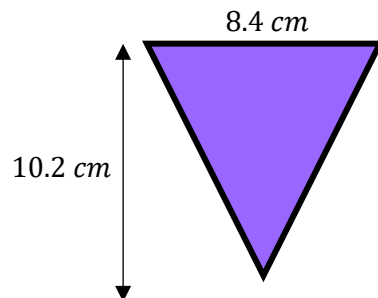


NOT DRAWN TO SCALE

$$\frac{15 \times 11}{2} = 82.5\text{ cm}^2$$

(3 marks)

4. Below is a triangle.



NOT DRAWN TO SCALE

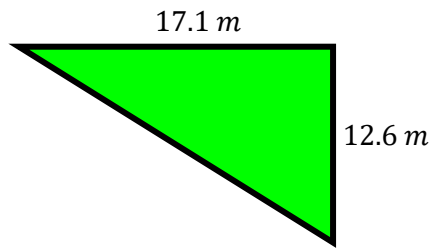
Calculate the area.

$$\frac{10.2 \times 8.4}{2} = 42.84\text{ cm}^2$$

(2 marks)

Area of a triangle

5. Work out the area of the triangle.



NOT DRAWN TO SCALE

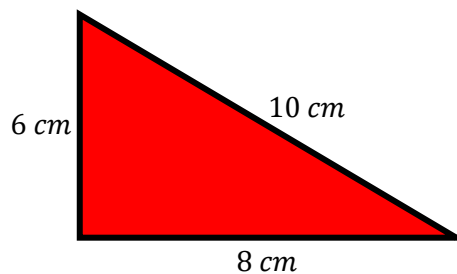
State the units.

$$\frac{17.1 \times 12.6}{2} = 107.73 \text{ cm}^2$$

(3 marks)

6. Work out the area of the triangle.
State the units.

NOT DRAWN TO SCALE

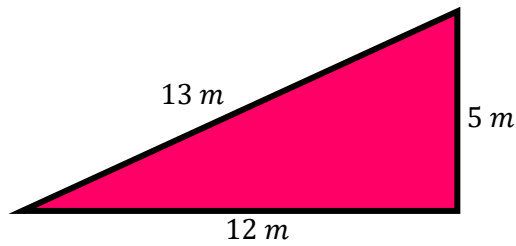


$$\frac{6 \times 8}{2} = 24 \text{ cm}^2$$

(3 marks)

Area of a triangle

7. Below is a triangle.
Find the area of the triangle.

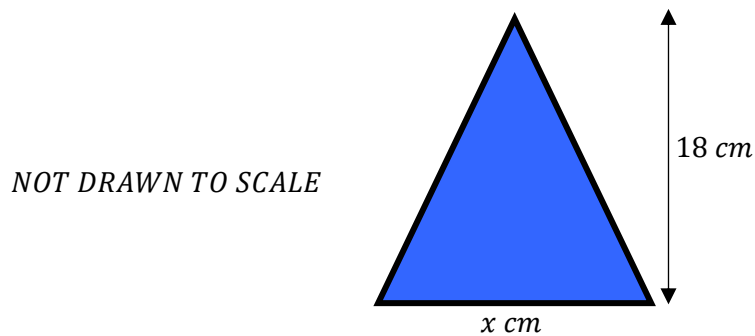


NOT DRAWN TO SCALE

$$\frac{5 \times 12}{2} = 30\text{ cm}^2$$

(3 marks)

8. The triangle has an area of 108 cm^2 .
Find the value of x .



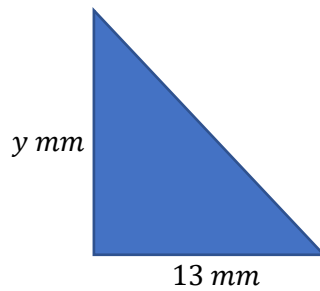
$$\frac{x \times 18}{2} = 108\text{ cm}^2$$

$$x = 12\text{ cm}$$

(3 marks)

Area of a triangle

9. The area of the triangle is 110.5 mm^2 .
Find y .



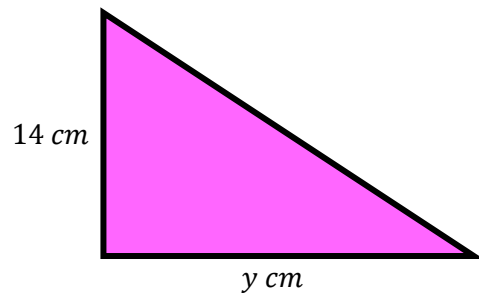
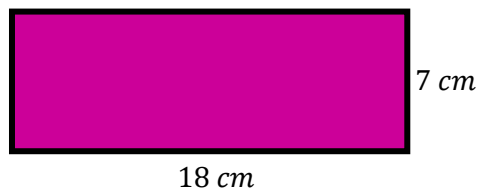
NOT DRAWN TO SCALE

$$\frac{13 \times y}{2} = 110.5 \text{ cm}^2$$

$$y = 17 \text{ cm}$$

(3 marks)

10. The area of the rectangle is the same as the area of the triangle.
Find x .



NOT DRAWN TO SCALE

$$\text{Rectangle: } 18 \times 7 = 126 \text{ cm}^2$$

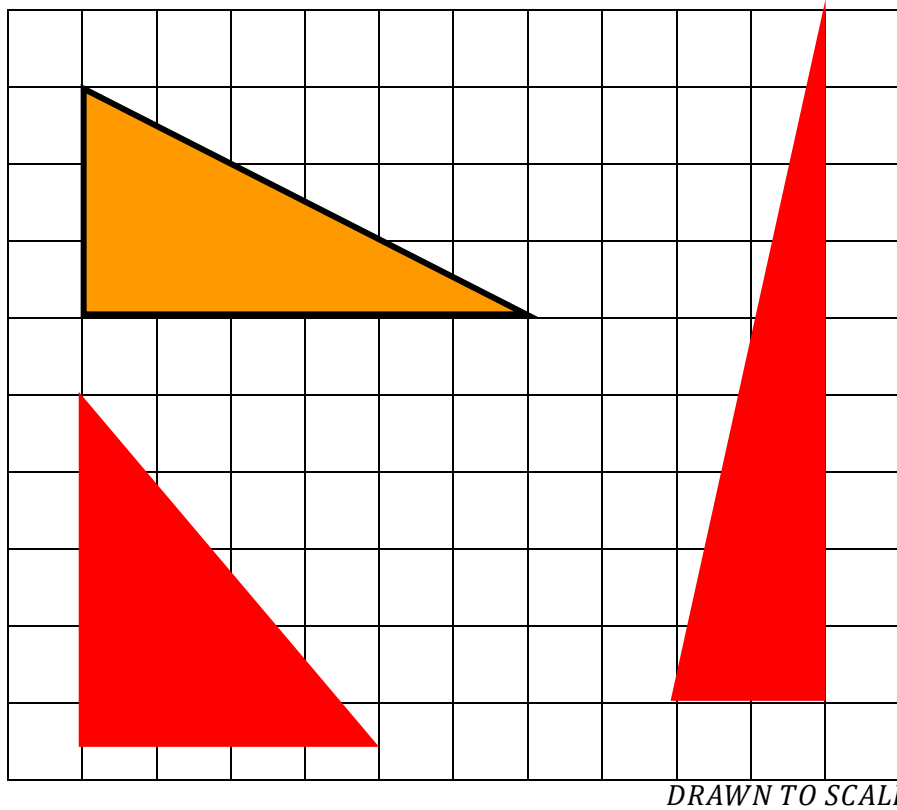
$$\frac{14 \times y}{2} = 126 \text{ cm}^2$$

$$y = 18 \text{ cm}$$

(3 marks)

Area of a triangle

11. Below is a triangle.
Draw 2 other triangles with the same area.

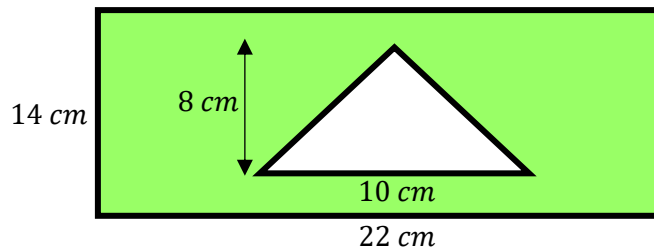


$$\frac{6 \times 3}{2} = 9 \text{ cm}^2$$

(3 marks)

Area of a triangle

12. Find the shaded area.



NOT DRAWN TO SCALE

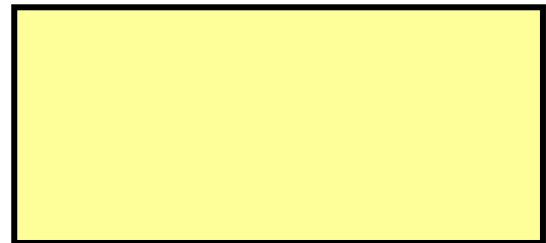
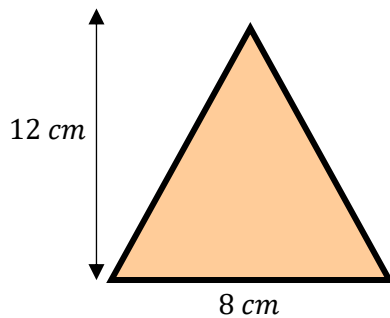
$$\text{Triangle: } \frac{10 \times 8}{2} = 40 \text{ cm}^2$$

$$\text{Rectangle: } 14 \times 22 = 308 \text{ cm}^2$$

$$\text{Shaded area: } 308 - 40 = 268 \text{ cm}^2$$

(3 marks)

13. Below is a triangle and a rectangle.
The rectangle is three times the area of the triangle.
Find a possible length and height of the rectangle.



NOT DRAWN TO SCALE

$$\frac{8 \times 12}{2} = 48 \text{ cm}^2$$

$$48 \times 3 = 144 \text{ cm}^2$$

$$24 \text{ cm}, 6 \text{ cm}$$

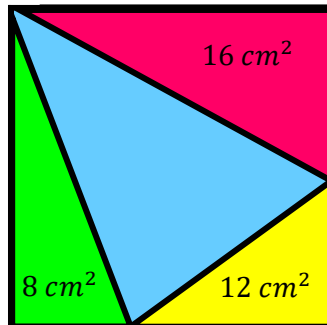
$$18 \text{ cm}, 8 \text{ cm}$$

$$36 \text{ cm}, 4 \text{ cm}$$

(3 marks)

Area of a triangle

14. Below is a square.
Find the missing area.



NOT DRAWN TO SCALE

$$12\text{cm}^2: 1 \times 24, 2 \times 12, 3 \times 8, 4 \times 6$$

$$8\text{cm}^2: 1 \times 16, 2 \times 8$$

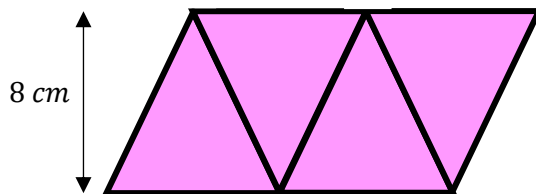
$$32\text{cm}^2: 1 \times 32, 2 \times 16, 4 \times 8$$

$$\text{Area of square: } 8 \times 8 = 64 \text{ cm}^2$$

$$\text{Blue area: } 64 - 8 - 16 - 12 = 28 \text{ cm}^2$$

(4 marks)

15. Four isosceles triangles tessellate to create this pattern.



NOT DRAWN TO SCALE

The total area of the shape is 144cm^2 .

Find the length of the base of one of the triangles.

$$1 \text{ triangle: } 144 \div 4 = 36 \text{ cm}^2$$

$$\frac{8 \times \text{base}}{2} = 36 \text{ cm}^2$$

$$\text{Base} = 9 \text{ cm}$$

(3 marks)