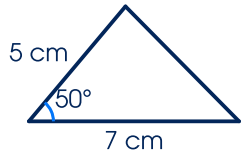
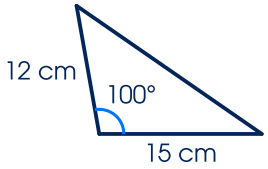
GCSE HIGHER · REVISION MAT 2

Area of a triangle using ½ab sin C

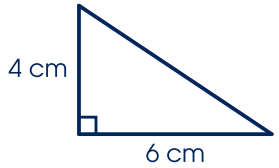
1 Find the area of this triangle.



2 Find the area of this triangle.

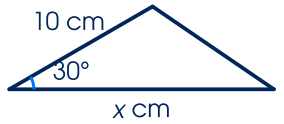


3 Show that $\frac{1}{2}ab \sin C$ gives an area of 12 cm² for this triangle.

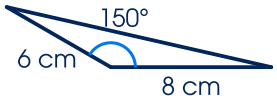


4 The area of this triangle is 40 cm².

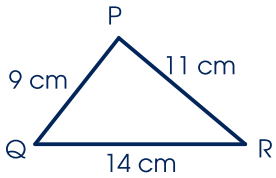
Find x.



5 Show that the area of this triangle is 12 cm².

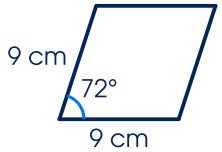


6 Find the area of triangle PQR.



7 Explain why triangles with sides 5 cm and 8 cm and included angles 30° and 150° have equal areas.

8 Find the area of this rhombus.



ANSWERS · REVISION MAT 2

Area of a triangle using ½ab sin C

1 $\frac{1}{2} \times 5 \times 7 \times \sin 50°$

13.4 cm²

2 $90 \sin 100°$

88.6 cm²

3 $\frac{1}{2} \times 4 \times 6 \times \sin 90° = 12 \times 1$

= 12

4 $\frac{1}{2} \times 10x \times 0.5 = 40$

x = 16

5 $24 \sin 150° = 24 \times 0.5$

= 12

6 $\cos Q = \frac{81 + 196 - 121}{252}$, $Q = 51.8°$

Area = $\frac{1}{2} \times 9 \times 14 \times \sin 51.8°$

Area = 49.5 cm²

7 **$\sin 30° = \sin 150° = 0.5$**

8 $2 \times \frac{1}{2} \times 81 \times \sin 72°$

77.0 cm²

Mr&Mrs MATHS