



Name: _____

Date: _____

Score: _____ / 42

- 1 Triangle ABC is a right-angled triangle with the right angle at B.
AB = 6 cm and BC = 8 cm.
Work out the length of AC.

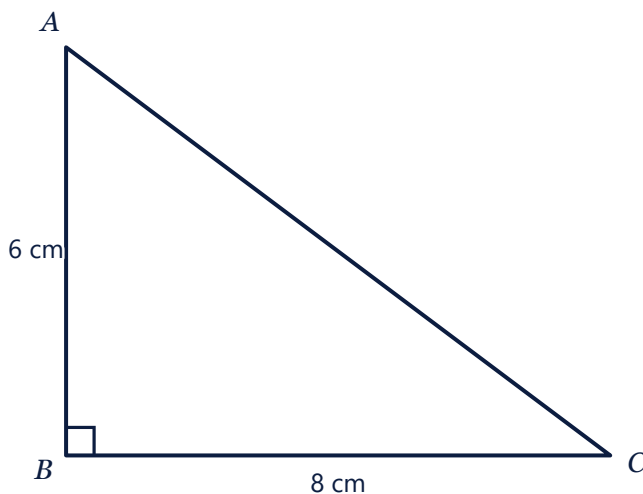


Diagram NOT accurately drawn

(2 marks)

Answer _____

- 2 A right-angled triangle has shorter sides of length 5 cm and 12 cm.
Work out the length of the hypotenuse.

(2 marks)

Answer _____

- 3** Triangle PQR is a right-angled triangle with the right angle at Q.
PQ = 7 cm and QR = 9 cm.
Work out the length of PR.
Give your answer correct to 1 decimal place.

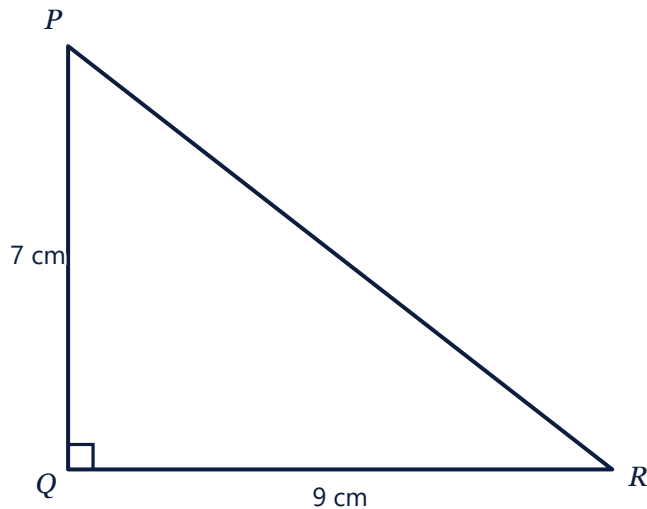


Diagram NOT accurately drawn

(2 marks)

Answer _____

- 4** In triangle PQR, angle Q = 90° , PQ = 7 cm and QR = 9 cm.
Work out the length of PR. Give your answer correct to 3 significant figures.

(3 marks)

Answer _____

- 5** A ship sails 24 km due north and then 10 km due east.
Work out the straight-line distance of the ship from its starting point.

(3 marks)

Answer _____

6 Here are the side lengths of two triangles.

a. Triangle A: 9 cm, 12 cm, 15 cm

b. Triangle B: 7 cm, 8 cm, 12 cm

Is each triangle right-angled? Show your working.

(4 marks)

Answer _____

7 A rectangular field is 60 m long and 45 m wide. Kyle walks from one corner to the opposite corner. He can walk along two sides of the field, or straight across the diagonal.

How much shorter is the diagonal route than walking along the two sides?

(3 marks)

Answer _____

8 A is the point with coordinates (2, 3).

B is the point with coordinates (10, 9).

Work out the length of AB.

(2 marks)

Answer _____

9 A triangle has vertices A(2, 1), B(10, 1) and C(2, 7). M is the midpoint of AB and N is the midpoint of AC.

a. Write down the coordinates of M and of N.

b. Work out the length of MN.

(4 marks)

Answer _____

- 10** A rectangle is 9 cm long and 6 cm wide.
Work out the length of a diagonal of the rectangle.
Give your answer correct to 1 decimal place.

(2 marks)

Answer _____

- 11** A right-angled triangle has sides 6 cm, 8 cm and 10 cm (the hypotenuse). A semicircle is drawn outwards on each side, using that side as its diameter.
Show that the area of the semicircle on the hypotenuse is equal to the sum of the areas of the other two semicircles.

(4 marks)

Answer _____

- 12** A triangle has sides of length 10 cm, 24 cm and 26 cm.
Show that the triangle is a right-angled triangle.

(3 marks)

Answer _____

- 13** A square has sides of length 5 cm.
A circle is drawn through all four vertices of the square.
Calculate the circumference of the circle. Give your answer correct to 3 significant figures.

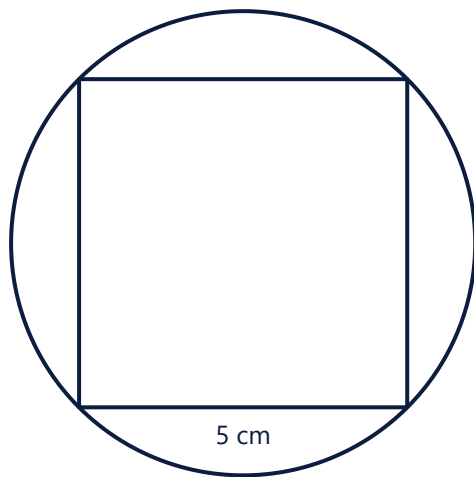


Diagram NOT accurately drawn

(4 marks)

Answer _____

- 14** A rectangle measures 8 cm by 15 cm.
A circle is drawn that passes through all four vertices of the rectangle, so a diagonal of the rectangle is a diameter of the circle.
Work out the circumference of the circle.
Give your answer correct to 1 decimal place.

(4 marks)

Answer _____

End of questions | Total 42 marks