Chapter 1

GCSE Questions - Right-Angled Triangles

1. ABC is an isosceles triangle.

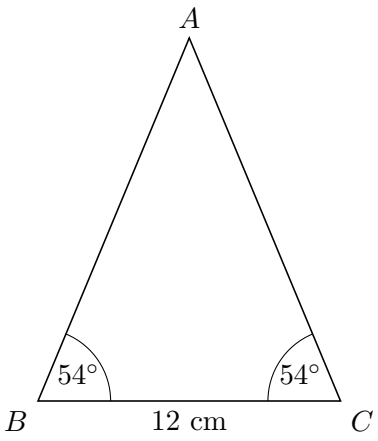

Diagram **NOT** accurately drawn

Work out the area of the triangle. Give your answer correct to 3 significant figures. **(4)**

.....cm^2

2. Here is a right-angled triangle.

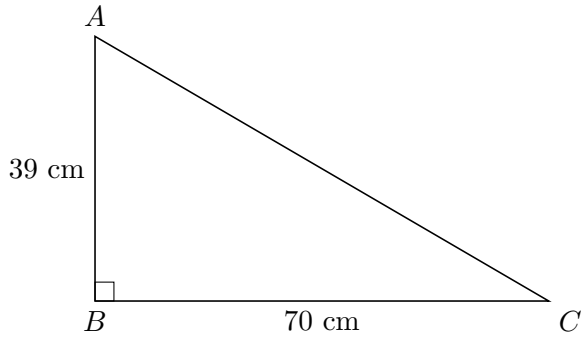

Diagram **NOT** accurately drawn

Work out the length of AC. Give your answer correct to 1 decimal place. **(3)**

.....cm

3.

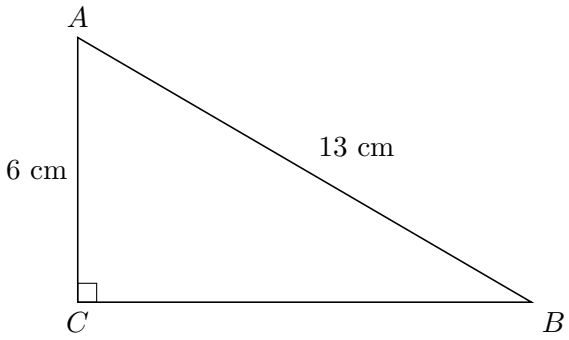

Diagram **NOT** accurately drawn

ABC is a right-angled triangle.

$AC = 6$ cm

$AB = 13$ cm

(a) Work out the length of BC. Give your answer correct to 3 significant figures. **(3)**

.....cm

(b)

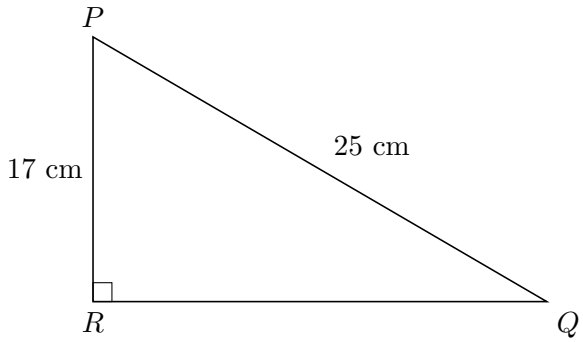

Diagram **NOT** accurately drawn

PQR is a right-angled triangle.

$R = 17$ cm

$PQ = 25$ cm

Work out the size of angle RPQ. Give your answer correct to 1 decimal place. **(3)**

.....°

4. The diagram shows a ladder leaning against a vertical wall.

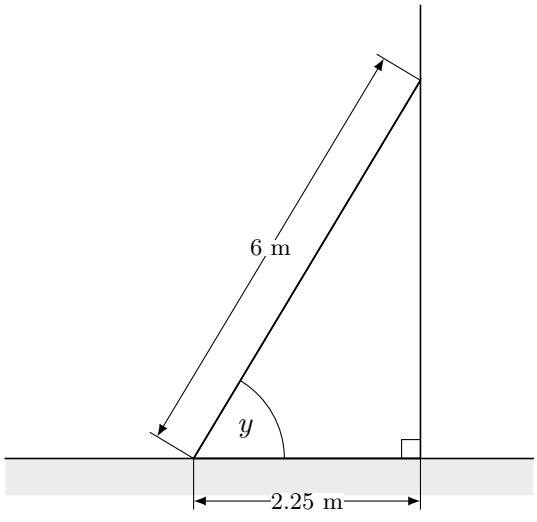

Diagram **NOT** accurately drawn

The ladder stands on horizontal ground. The length of the ladder is 6 m. The bottom of the ladder is 2.25 m from the bottom of the wall. A ladder is safe to use when the angle marked y is about 75°.

Is the ladder safe to use? You must show all your working. **(4)**

5. XYZ is a right-angled triangle.

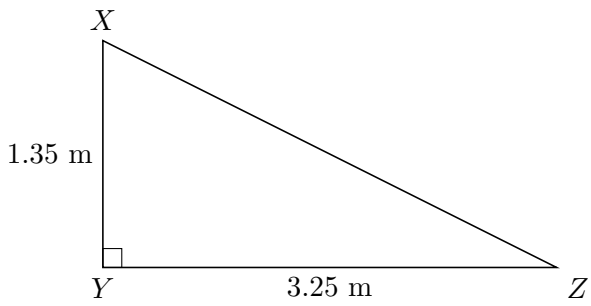

Diagram **NOT** accurately drawn

Calculate the length of XZ. Give your answer correct to 3 significant figures. **(3)**

.....m

6.

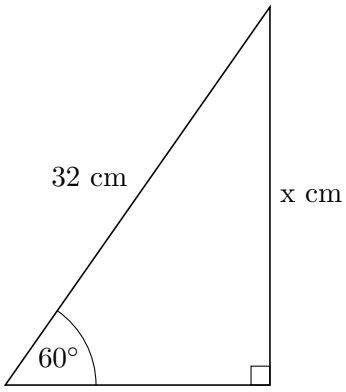

Diagram **NOT** accurately drawn

Calculate the value of x. Give your answer correct to 3 significant figures. **(3)**

.....

7. $ABCD$ is a trapezium

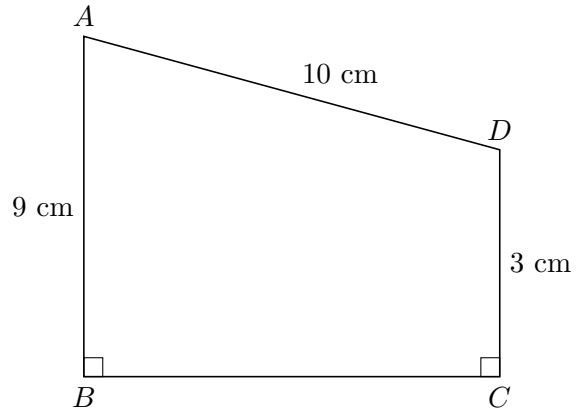

Diagram **NOT** accurately drawn

$AD = 10$ cm

$AB = 9$ cm

$DC = 3$ cm

Angle ABC = angle $BCD = 90°$ Calculate the length of AC. Give your answer correct to 3 significant figures. **(5)**

.....cm

8. PQR is a right-angled triangle.

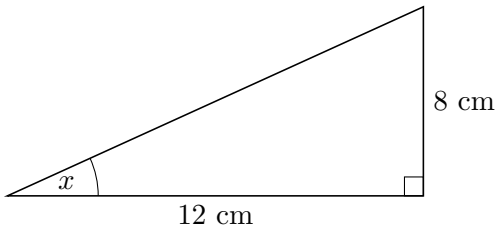

Diagram **NOT** accurately drawn

$PR = 8$ cm.

$QR = 12$ cm

(a) Find the size of the angle marked x. Give your answer correct to 1 decimal place. **(3)**

$x =$ ---------- $^{\circ}$