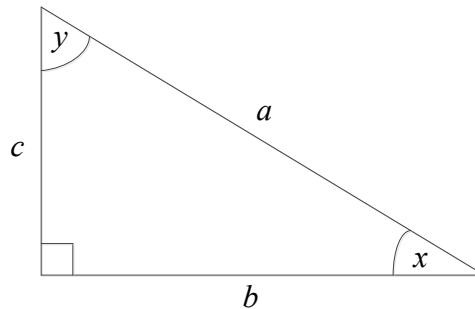


Topic Test 2 (20 minutes)

Pythagoras' Theorem and basic trigonometry - Higher

Use this diagram to answer questions 1 to 3.



1 Circle the correct formula.

[1 mark]

$$c^2 = a^2 + b^2$$

$$b^2 = a^2 + c^2$$

$$a^2 = c^2 - b^2$$

$$a^2 = b^2 + c^2$$

2 Circle the correct formula.

[1 mark]

$$\sin x = \frac{c}{b}$$

$$\sin x = \frac{c}{a}$$

$$\sin x = \frac{b}{c}$$

$$\sin x = \frac{a}{b}$$

3 Circle the correct formula.

[1 mark]

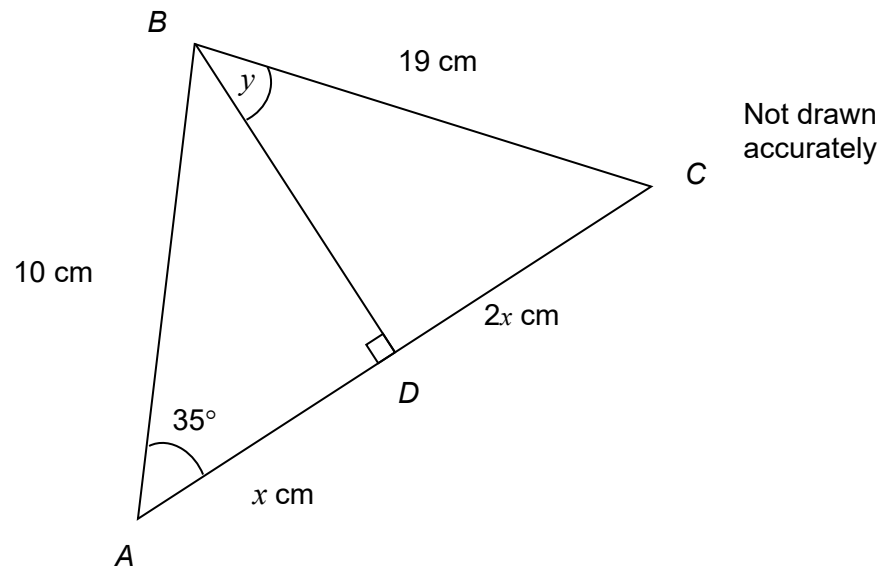
$$\tan y = \frac{c}{b}$$

$$\tan y = \frac{b}{c}$$

$$\tan y = \frac{c}{a}$$

$$\tan y = \frac{a}{b}$$

4 ADC is a straight line.



Work out angle y .

[4 marks]

5 You are given that $\cos 30^\circ \times \cos 45^\circ = \sqrt{\frac{a}{b}}$

Work out the values of the integers a and b .

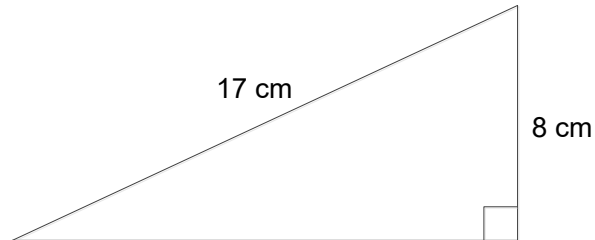
[3 marks]

$a =$ _____

$b =$ _____

6 Work out the area of this triangle.

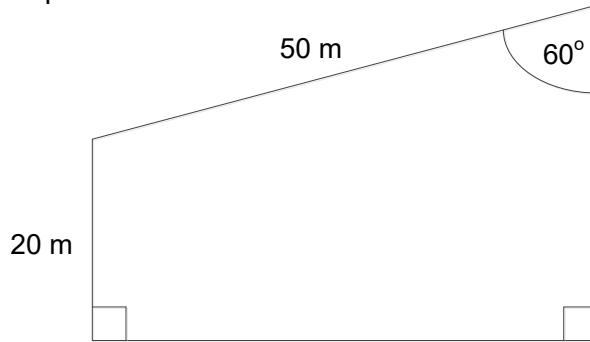
[4 marks]



Not drawn accurately

Answer _____ cm^2

7 The diagram shows a plot of land.



Not drawn accurately

A fence is built on the perimeter of the land.

The fence costs £12.98 per metre.

Work out the cost of building the fence.

[5 marks]

Answer £ _____

8 Which of the following is true?
Circle your answer.

[1 mark]

$\tan 30 = \frac{3}{\sqrt{3}}$ $\sin 45 = \frac{\sqrt{2}}{2}$ $\cos 60 = \frac{\sqrt{3}}{3}$ $\tan 60 = 2$