

Exact trig functions

Question 1

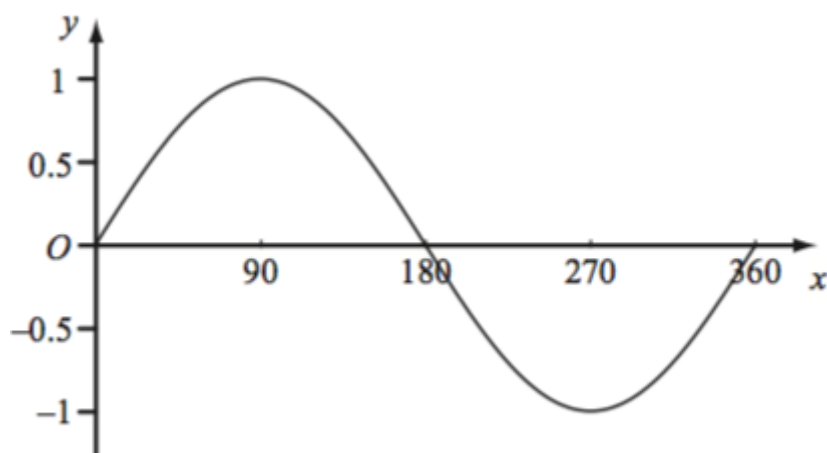
Write down the exact value of $\tan 45^\circ$

.....

(1 mark)

Question 2

The diagram shows a sketch of the curve $y = \sin x^\circ$ for $0 \leq x \leq 360^\circ$



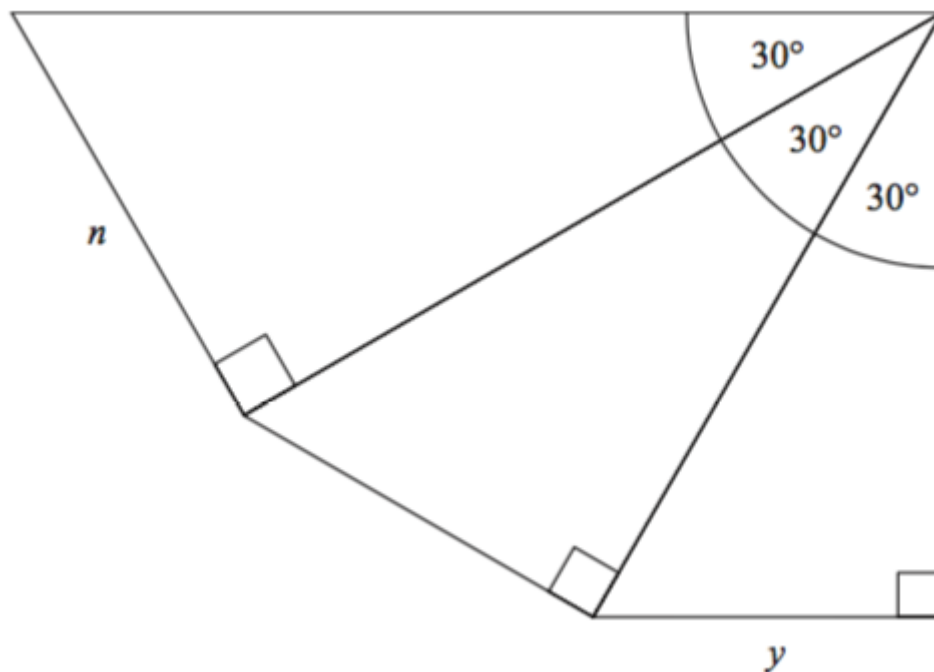
The exact value of $\sin 60^\circ = \frac{\sqrt{3}}{2}$

Write down the exact value of $\sin 240^\circ$

.....

(1 mark)

Question 3



The diagram shows three right-angled triangles.

Given that $y = kn$, find the value of k .

.....

(4 marks)

Question 4

The table shows some values of x and y that satisfy the equation $y = a \cos x^\circ + b$

x	0	30	60	90	120	150	180
y	3	$1 + \sqrt{3}$	2	1	0	$1 - \sqrt{3}$	-1

Find the value of y when $x = 45$

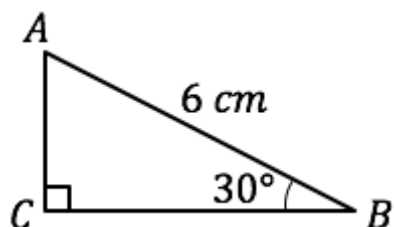
$y = \dots\dots\dots$

(4 marks)

Question 5

Work out the length of BC , leaving your answer as a surd.

Do not use a calculator for this question.

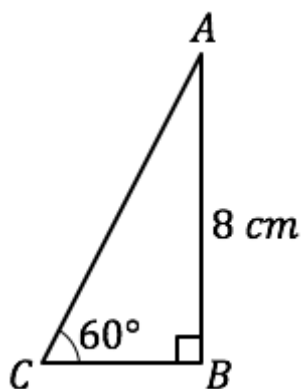


$$BC = \dots\dots\dots\text{ cm}$$

Question 6

Work out the length of BC .

Do not use a calculator for this question and leave your answer in surd form.



$$BC = \dots\dots\dots$$
