Name	Class

MATHS TEACHER HUB

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Trig identities

(9 – 1) Topic booklet

Higher

These questions have been collated from previous years GCSE Mathematics papers.

You must have: Ruler graduated in centimetres and millimetres, protractor, pair of compasses, pen, HB pencil, eraser.

Total Marks

Instructions

•Use **black** ink or ball-point pen.
•**Fill in the boxes** at the top of this page with your name, centre number and candidate number.
•Answer **all** questions.
•Answer the questions in the spaces provided
– *there may be more space than you need*.
•Diagrams are NOT accurately drawn, unless otherwise indicated.
•You must **show all your working out.**
•If the question is a **1H** question you are not allowed to use a calculator.
•If the question is a **2H** or a **3H** question, you may use a calculator to help you answer.

Information

•The marks for **each** question are shown in brackets
– *use this as a guide as to how much time to spend on each question*.

Advice

•Read each question carefully before you start to answer it.
•Keep an eye on the time.
•Try to answer every question.
•Check your answers if you have time at the end.

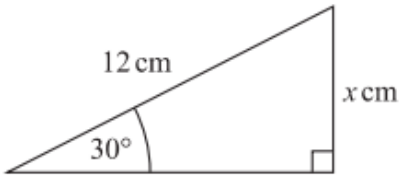
Answer ALL questions
Write your answers in the space provided.
You must write down all the stages in your working.

7 (a) Write down the exact value of $\cos 30°$

.....

(1)

(b)



Given that $\sin 30° = 0.5$,
work out the value of x.

.....

(2)

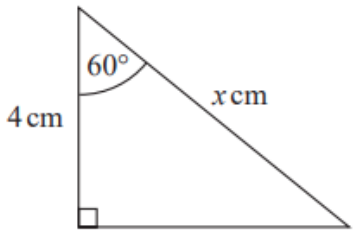
(Total for Question 7 is 3 marks)

8 (a) Write down the exact value of tan 45°

.....

(1)

Here is a right-angled triangle.



cos 60° = 0.5

(b) Work out the value of x.

.....

(2)

(Total for Question 8 is 3 marks)

14 Find the exact value of $\tan 30° \times \sin 60°$
Give your answer in its simplest form.

.....

June 2019 – Paper 1H **(Total for Question 14 is 2 marks)**

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

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 $x = 45$

.....

November 2017 – Paper 1H **(Total for Question 20 is 4 marks)**