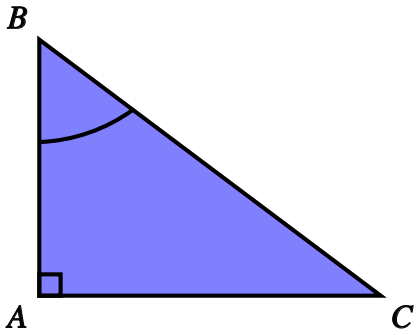
Trigonometry 1

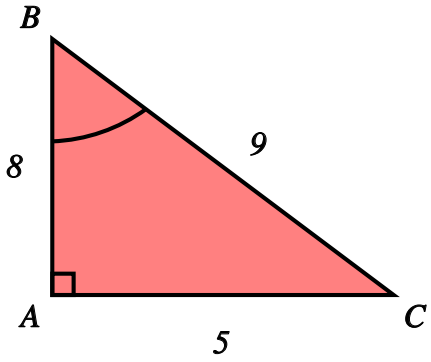
Name:	Class:	Date:

Mark	/ 15	%

1) Identify which sides are the *hypotenuse*, *adjacent* and *opposite* to the given angle ABC [1]



2) Express the sine of angle ABC as a ratio of the sides of triangle ABC [1]



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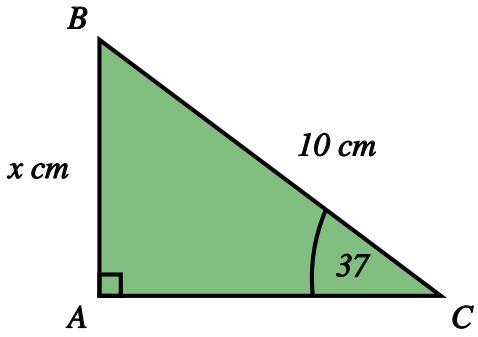
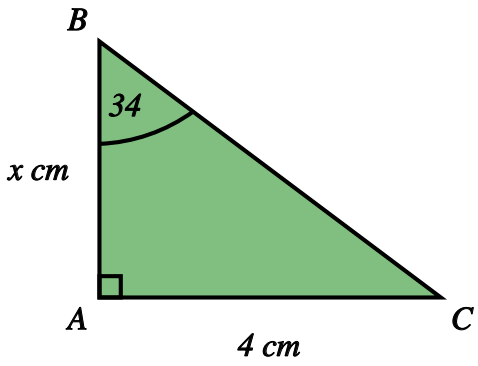
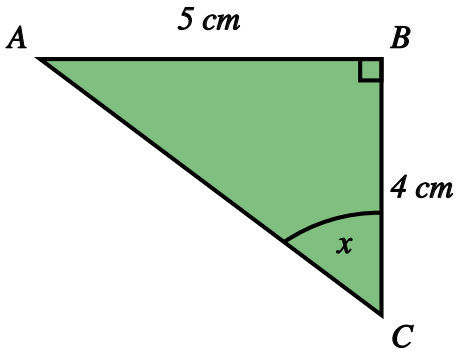
3) Find x in the triangle below, giving your answer to 3 significant figures. [1]



4) Find x in the triangle below, giving your answer to 3 significant figures [1]



5) Find angle x in the triangle below, giving your answer to 1 decimal place. [1]



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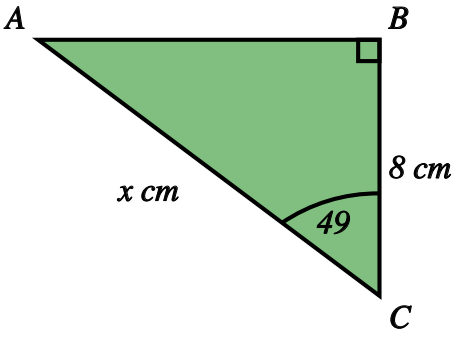
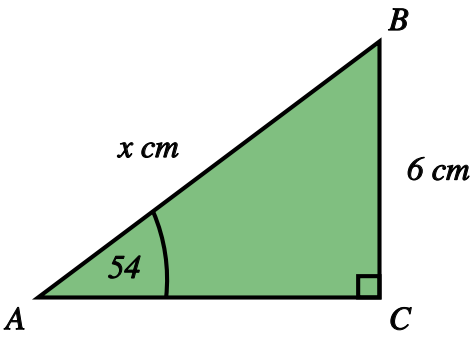
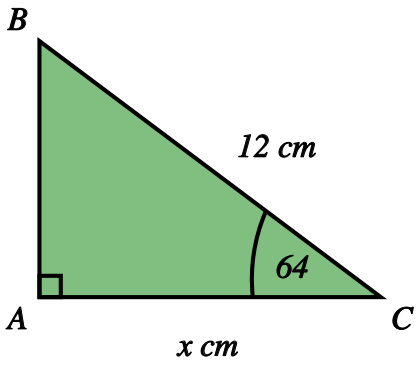
6) Find x in the triangle below, giving your answer to 3 significant figures [1]



7) Find x in the triangle below, giving your answer to 3 significant figures [1]



8) Find x in the triangle below, giving your answer to 3 significant figures. [1]



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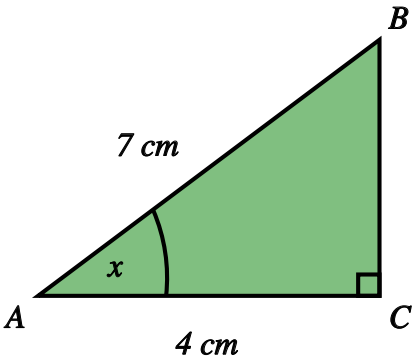
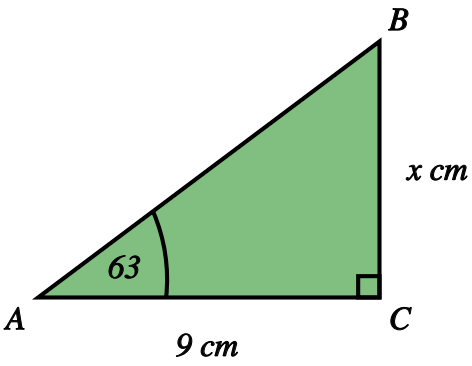
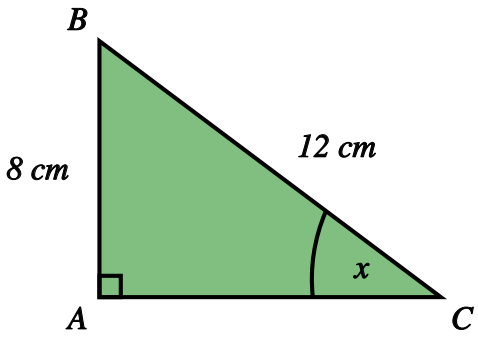
9) Find angle x in the triangle below, giving your answer to 1 decimal place. [1]



10) Find x in the triangle below, giving your answer to 3 significant figures. [1]



11) Find angle x in the triangle below, giving your answer to 1 decimal place. [1]



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12) A safe angle for a ladder is about 75° from the ground. [1]
If you have a 3.2 metre ladder, how far from a wall should you place the base of the ladder?
Give your answer to 3 significant figures.

13) A safe angle for a ladder is about 75° from the ground. [1]
If you have a 4 metre ladder, how high can it reach up a wall?
Round your answer to 3 significant figures.

14) Bradley is looking up at a spaceship. The direct distance from Bradley to the spaceship is 16 km. [1]
The vertical distance from Bradley to the spaceship is 13 km.
Calculate the angle of elevation from Bradley to the spaceship, giving your answer to 1 decimal place.

15) The angle of elevation from Valerie to a spaceship is 25°. [1]
The horizontal distance from Valerie to the spaceship is 4 km.
Calculate the direct distance from Valerie to the spaceship, giving your answer to 3 significant figures.

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Solutions for the assessment Trigonometry 1

1) Hypotenuse is BC, Adjacent is AB, Opposite is AC

2) sine of angle ABC = $\frac{o}{h} = \frac{5}{9}$

3) x = 6.02 cm

4) x = 5.93 cm

5) x = 51.3°

6) x = 12.2 cm

7) x = 7.42 cm

8) x = 5.26 cm

9) x = 55.2°

10) x = 17.7 cm

11) x = 41.8°

12) Distance = 0.828 m

13) Height = 3.86 m

14) Angle of elevation = 54.3°

15) Distance = 4.41 km

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