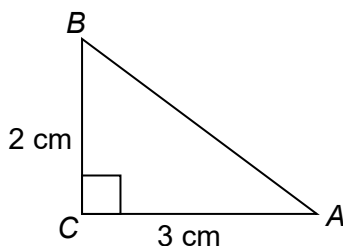


# Topic Test 1 (20 minutes)

## Introduction to trigonometry - Foundation

1 What is the value of  $\tan A$  for this triangle?



Not drawn accurately

Circle your answer.

[1 mark]

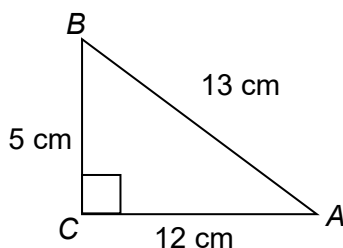
$\frac{2}{3}$

$\frac{2}{5}$

$\frac{2}{\sqrt{13}}$

$\frac{3}{\sqrt{13}}$

2 What is the value of  $\sin A$  for this triangle?



Not drawn accurately

Circle your answer.

[1 mark]

$\frac{5}{12}$

$\frac{5}{13}$

$\frac{12}{13}$

$\frac{13}{5}$

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**3 (a)** Use your calculator to work out  $25 \cos 54^\circ$

Give your answer to 1 decimal place.

**[1 mark]**

Answer \_\_\_\_\_

**3 (b)** Use your calculator to work out  $\frac{15}{\tan 32^\circ}$

Give your answer to the nearest whole number.

**[1 mark]**

Answer \_\_\_\_\_

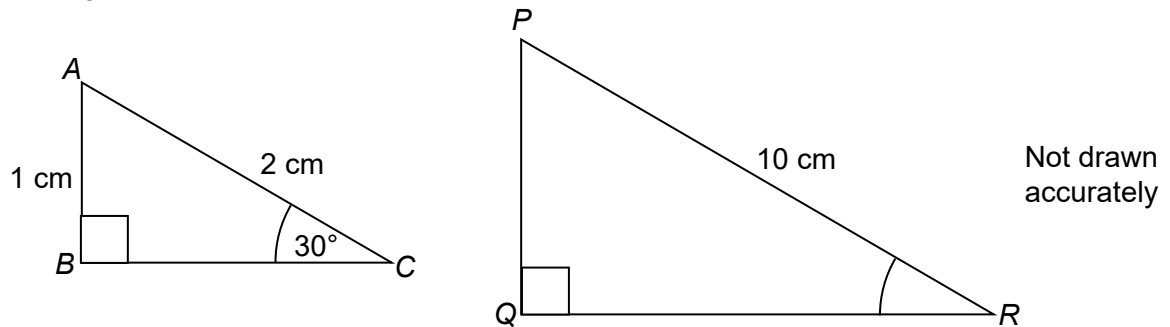
**3(c)** Use your calculator to work out  $\tan^{-1}\left(\frac{18}{35}\right)$

Give your answer to 1 decimal place

**[1 mark]**

Answer \_\_\_\_\_ degrees

4 Triangles  $ABC$  and  $PQR$  are similar.



4 (a) Write down the size of angle  $BAC$ .

[1 mark]

Answer \_\_\_\_\_ degrees

4 (b) Write down the size of angle  $PRQ$ .

[1 mark]

Answer \_\_\_\_\_ degrees

4 (c) Use Pythagoras' theorem to work out the length  $BC$ .  
Give your answer as an exact value.

[2 marks]

\_\_\_\_\_  
\_\_\_\_\_

Answer \_\_\_\_\_ cm

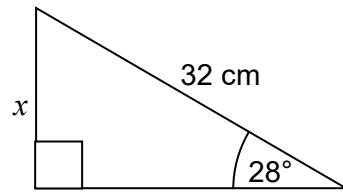
4 (d) Work out the length of  $QR$ .  
Give your answer as an exact value.

[1 mark]

\_\_\_\_\_

Answer \_\_\_\_\_ cm

5



Not drawn accurately

Which of the following gives the length  $x$  in centimetres?  
Circle your answer.

[1 mark]

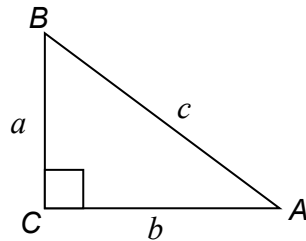
$32 \times \sin 28^\circ$

$28 \times \sin 32^\circ$

$32 \times \cos 28^\circ$

$28 \times \cos 32^\circ$

6 For this triangle, which of the following is **not** true?



Circle your answer.

[1 mark]

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

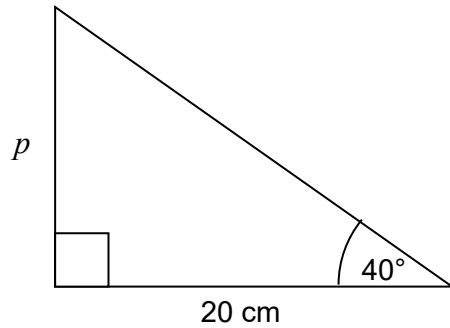
$\sin B = \frac{b}{c}$

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

$\cos A = \frac{b}{c}$

7 Work out the length  $p$ .

[2 marks]



Not drawn accurately

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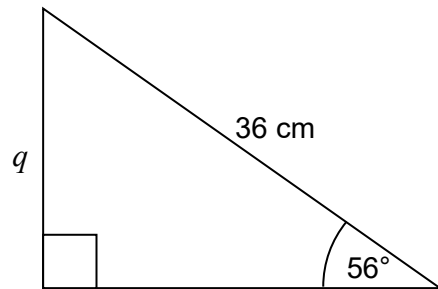
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Answer \_\_\_\_\_ cm

8 Work out the length  $q$ .

[2 marks]



Not drawn accurately

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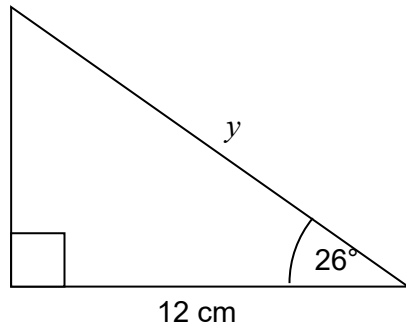
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Answer \_\_\_\_\_ cm

9 Work out the length  $y$ .

[2 marks]



Not drawn accurately

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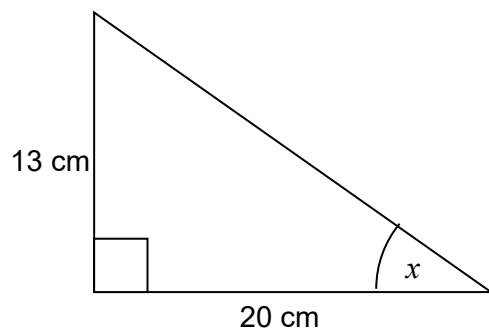
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Answer \_\_\_\_\_ cm

10 Work out the size of angle  $x$ .

[2 marks]



Not drawn accurately

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Answer \_\_\_\_\_ degrees