



THIRD SPACE
LEARNING

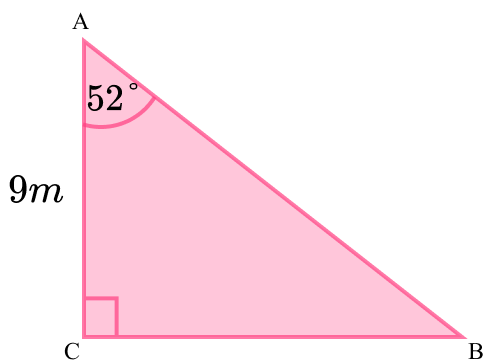
GCSE Exam Questions

SOHCAHTOA | Geometry &
Measure

GCSE Exam Questions: SOHCAHTOA

- 1) (a) ABC is a right-angled triangle. $AC = 9\text{m}$. Angle BAC is 52° .

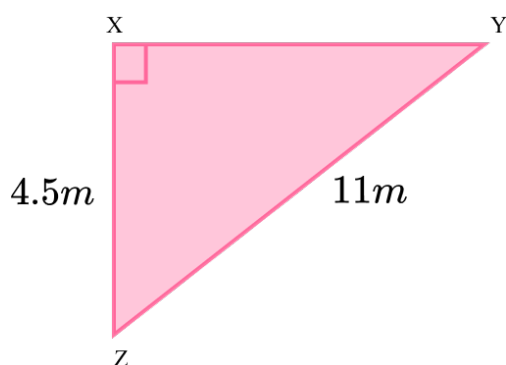
Calculate the length of BC . Give your answer correct to 3.s.f.



(3)

- (b) XYZ is a different triangle. $XZ = 4.5\text{m}$ and $YZ = 11\text{m}$.

Calculate the size of the angle XYZ . Give your answer correct to 3.s.f.



(3)

(6 marks)

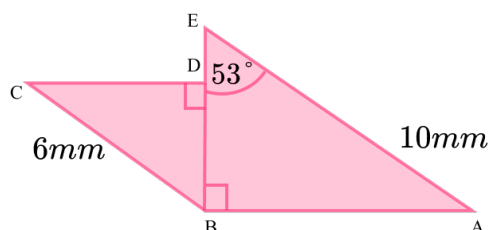
GCSE Exam Questions: SOHCAHTOA

- 2) The shape $ABCDE$ is made from two right-angled triangles.

Angle $AEB = 53^\circ$

$AE = 10\text{mm}$

$BC = 6\text{mm}$



- (a) Calculate the length BE

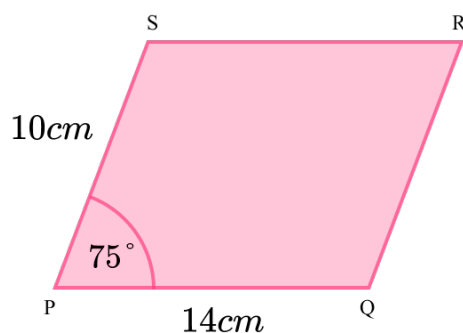
(3)

- (b) $DE = 2\text{mm}$. Calculate the size of the angle DCB .

(4)

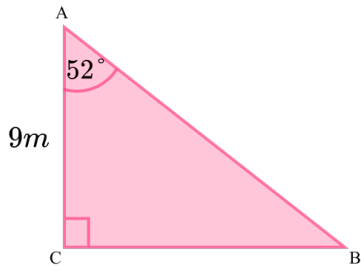
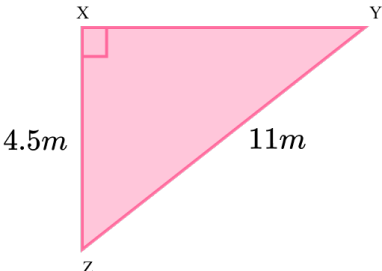
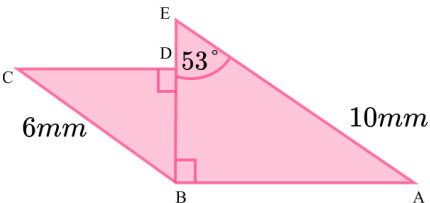
(7 marks)

- 3) $PQRS$ is a parallelogram. Calculate the area of the parallelogram.

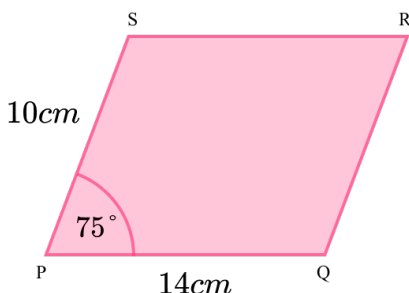


(5 marks)

GCSE Exam Questions: SOHCAHTOA Answers

	Question	Answer	Marks
1) (a)	<p>ABC is a right-angled triangle. $AC = 9\text{m}$. Angle BAC is 52°</p>  <p>Calculate the length of BC. Give your answer correct to 3.s.f.</p>	$\tan(52) = \frac{BC}{9}$ $BC = 9 \tan(52)$ $BC = 11.5\text{m}$	<p>(1)</p> <p>(1)</p> <p>(1)</p>
	<p>(b) XYZ is a different triangle. $XZ = 4.5\text{m}$ and $YZ = 11\text{m}$.</p>  <p>Calculate the size of the angle XYZ. Give your answer correct to 3.s.f.</p>	$\sin(Y) = \frac{4.5}{11}$ $Y = \sin^{-1}\left(\frac{4.5}{11}\right)$ $Y = 24.1^\circ$	<p>(1)</p> <p>(1)</p> <p>(1)</p>
2) (a)	<p>The shape $ABCDE$ is made from two right-angled triangles.</p>  <p>Angle $AEB = 53^\circ$ $AE = 10\text{mm}$ $BC = 6\text{mm}$</p> <p>Calculate the length BE</p>	$\cos(53) = \frac{BE}{10}$ $BE = 10 \cos(53)$ $BE = 6.02\text{mm}$	<p>(1)</p> <p>(1)</p> <p>(1)</p>

GCSE Exam Questions: SOHCAHTOA Answers

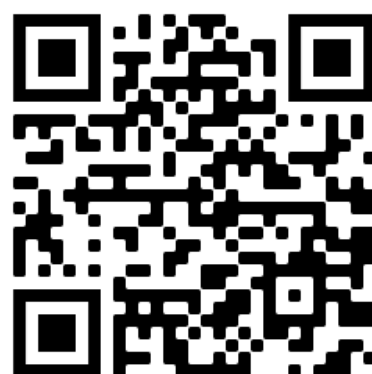
	Question	Answer	Marks
(b)	$DE = 2mm$. Calculate the size of the angle DCB.	$BD = 6.018... - 2$ $BD = 4.018...mm$ $\sin(C) = \frac{4.018...}{6}$ oe $C = 42.0^\circ$	(1) (1) (1) (1)
3)	<p>$PQRS$ is a parallelogram. Calculate the area of the parallelogram.</p> 	<p>Height of parallelogram:</p> $\sin(75) = \frac{h}{10}$ $h = 10 \sin(75)$ $h = 9.659...cm$ <p>Area of parallelogram:</p> $9.659... \times 14$ $= 135.2cm^2$	(1) (1) (1) (1) (1)

Where to go next?

For more diagnostic questions, and GCSE maths revision resources and worksheets to support students in fixing any misconceptions take a look at the free Third Space Learning [GCSE maths revision](#) pages.

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