4.15 Introduction to Trigonometry: 10-minute Pack

Calculators not allowed · about 10 minutes

Name: _____ Date: ____ / ____ / _____

Answer ALL questions. Show all your working.

1 Write down the trigonometric ratio you would use to find the length of the opposite side given the angle and hypotenuse. Give the ratio name and the formula in words.

(a) Name the ratio. **(1)**

(b) Write the formula in words. **(1)**

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2 A ramp 13 m long makes an angle of 69° with the horizontal. Work out the horizontal distance the ramp covers. Give your answer correct to 1 decimal place.

(3)

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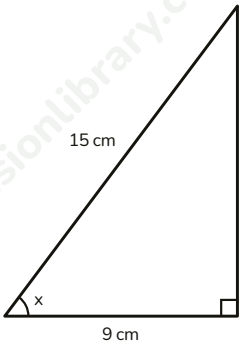
3 Write down the exact value of tan 60°.

(1)

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4 In a right-angled triangle the side adjacent to angle x is 9 cm and the hypotenuse is 15 cm. Work out the size of angle x. Give your answer correct to 1 decimal place.

Diagram NOT accurately drawn



(3)

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Mark scheme · 4.15 Introduction to Trigonometry: 10-minute Pack

Question 1

(a) sine named as the correct ratio (sine)	**B1**
(a) Answer: **Sine**	
(b) sine = opposite divided by hypotenuse stated	**B1**
(b) Answer: **Sine = opposite / hypotenuse**	

Question 2

cos 69 = x/13	**M1**
13 x cos 69	**M1**
4.7 m cao	**A1**
Answer: **4.7 m**	

Question 3

$\sqrt{3}$ cao	**B1**
Answer: $\sqrt{3}$	

Question 4

correct ratio chosen: cos x = 9/15	**M1**
inverse cos used: $\cos^{-1}(9/15)$	**M1**
53.1° cao	**A1**
Answer: **53.1°**	

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