4.14 Pythagoras' Theorem: 10-minute Pack

Calculators not allowed · about 10 minutes

Name: _____ Date: ____ / ____ / _____

Answer ALL questions. Show all your working.

1 A triangular park has right angle at A. The sides meeting at A are 30 m and 16 m. Find the distance between the two far corners (the hypotenuse).

(2)

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2 A triangular field is right-angled. One short side is 150 m and the hypotenuse is 170 m. A farmer wants to fence the two short sides only. Calculate the total length of fencing needed, giving your answer in metres.

(4)

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3 Work out the distance between (-3, -2) and (-2, 6). Give your answer correct to 1 decimal place.

(3)

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Mark scheme · 4.14 Pythagoras'Theorem: 10-minute Pack

Question 1

method: $hyp^2 = 30^2 + 16^2 = 900 + 256 = 1156$	**M1**
hyp = 34 m cao	**A1**

Answer: **34 m**

Question 2

method: other short $side^2 = 170^2 - 150^2 = 28900 - 22500 = 6400$	**M1**
other short side = 80 m	**M1**
total fencing = 150 + 80 = 230 m	**A1**
units stated (m) or implied	**B1**

Answer: **230 m**

Question 3

$1^2 + 8^2 = 65$	**M1**
$\sqrt{65}$	**M1**
8.1 cao	**A1**

Answer: **8.1**

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