

Exercise walk-through

4.2

Trig Basic

Pearson Edexcel · International GCSE · Mathematics A

Exercises 2.1·2.3

2.1 (Foundation) Find the hypotenuse when the legs are 3 and 4.

2.2 (Foundation) Find $\sin\theta$ when opposite=3 and hypotenuse=5.

2.3 (Foundation) Two sides 6 and 8 enclose 90° . Find their area.

Exercises 2.1·2.3

2.1 (Foundation) Find the hypotenuse when the legs are 3 and 4.

2.1 Pythagoras gives $\sqrt{(3^2+4^2)}=5$.

2.2 (Foundation) Find $\sin\theta$ when opposite=3 and hypotenuse=5.

2.2 Sine=opposite/hypotenuse= $3/5=0.6$.

2.3 (Foundation) Two sides 6 and 8 enclose 90° . Find their area.

2.3 The sides are perpendicular, so area= $6 \times 8 / 2 = 24$.

Exercise 3.1

3.1 Decide whether this claim is true. Justify with a concrete calculation or counterexample: Pythagoras applies to every triangle, including triangles without a right angle.

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3.1 False. An equilateral triangle of side 1 has $1^2 + 1^2 = 2 \neq 1^2$. Pythagoras requires a right angle and identifies the opposite hypotenuse.

Local review guidance: show the chosen method; give the checked result; explain the condition or failed shortcut. This is authored classroom guidance.