

Exercise walk-through

4.1

Geometry

Pearson Edexcel · International GCSE · Mathematics A

Exercises 2.1·2.3

2.1 (Foundation) Find the area of a rectangle of sides 8 cm and 5 cm.

2.2 (Foundation) Find the area of a triangle of base 8 cm and height 5 cm.

2.3 (Foundation) Find the sum of interior angles of a pentagon in degrees.

Exercises 2.1·2.3

2.1 (Foundation) Find the area of a rectangle of sides 8 cm and 5 cm.

2.1 Rectangle area = $8 \times 5 = 40 \text{ cm}^2$.

2.2 (Foundation) Find the area of a triangle of base 8 cm and height 5 cm.

2.2 Triangle area = $8 \times 5 / 2 = 20 \text{ cm}^2$.

2.3 (Foundation) Find the sum of interior angles of a pentagon in degrees.

2.3 Interior-angle sum = $(5-2) \times 180 = 540^\circ$.

Exercises 2.4·3.1

2.4 (Higher) Two similar figures have length factor 3. Find the area factor.

2.5 (Higher) Two similar solids have length factor 3. Find the volume factor.

3.1 Decide whether this claim is true. Justify with a concrete calculation or counterexample: A triangle and rectangle with the same base and height have the same area.

Exercises 2.4·3.1

2.4 (Higher) Two similar figures have length factor 3. Find the area factor.

2.4 Area scales by the square of the length factor: $3^2=9$.

2.5 (Higher) Two similar solids have length factor 3. Find the volume factor.

2.5 Volume scales by the cube: $3^3=27$.

3.1 Decide whether this claim is true. Justify with a concrete calculation or counterexample: A triangle and rectangle with the same base and height have the same area.

3.1 False. Base 8 cm and perpendicular height 5 cm give rectangle area 40 cm^2 and triangle area 20 cm^2 .

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