

Stage 6 Cambridge Primary Mathematics Practice Worksheet

Friday 14 August 2026

Syllabus Focus: Objective 6Gg.03 — Area of Right-Angled Triangles

Topic: Deriving and calculating the area of right-angled triangles from rectangles

Time Allowed: 30 Minutes | **Total Marks:** 20 Marks

Section A: Concept and Grid-Based Estimation

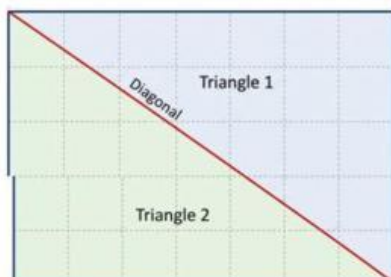
Question 1 [1 Mark]

Complete the sentence:

The area of a right-angled triangle is always exactly **half** the area of a _____
with the same length and width.

Question 2 (TWM.02 Generalising) [2 Marks]

Look at the grid below where each small square represents 1 cm^2 .



(a) Calculate the area of the full rectangle. [1]

Answer: _____ cm^2

(b) Use your answer to part (a) to find the exact area of one of the right-angled triangles. [1]

Answer: _____ cm^2

Question 3 (TWM.07 Critiquing / Misconception Check) [2 Marks]

Farai is finding the area of a right-angled triangle with perpendicular sides of 6 cm and 8 cm, and a diagonal side of 10 cm.

Farai writes:

$$\text{Area} = 6 \text{ cm} + 8 \text{ cm} + 10 \text{ cm} = 24 \text{ cm}^2$$

(a) Explain the error in Farai's method. [1]

(b) Calculate the **correct** area of the right-angled triangle. [1]

Answer: _____ cm^2

Section B: Direct Calculations

Question 4 [2 Marks]

Calculate the area of each right-angled triangle described below.

(a) Base = 10 cm, Height = 4 cm

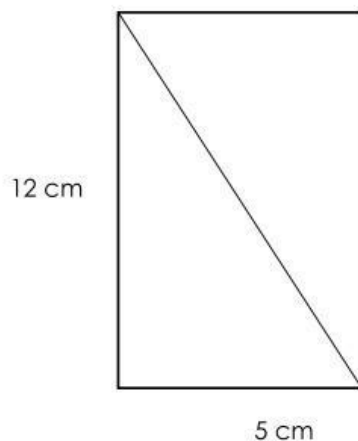
Answer: _____ cm^2 [1]

(b) Base = 7 cm, Height = 6 cm

Answer: _____ cm^2 [1]

Question 5 [2 Marks]

A right-angled triangle is drawn inside a rectangle as shown:



(a) Calculate the area of the rectangle. [1]

Answer: _____ cm^2

(b) Calculate the area of the shaded right-angled triangle. [1]

Answer: _____ cm^2

Section C: Reasoning and Conjecturing

Question 6 (TWM.03 Conjecturing) [2 Marks]

Tariro has a right-angled triangle with an area of 18 cm^2 .

(a) What would be the area of a rectangle with the same base and height as Tariro's triangle?

[1]

Answer: _____ cm^2

(b) Give **one possible pair** of whole-number measurements for the base and height of Tariro's triangle. [1]

Base: _____ cm Height: _____ cm

Question 7 [2 Marks]

Write $<$, $>$, or $=$ to complete each comparison statement.

(a) Area of a right-angled triangle (base 8 cm, height 5 cm) □ Area of a rectangle (4 cm by 5 cm) [1]

(b) Area of a square (6 cm by 6 cm) □ Area of a right-angled triangle (base 12 cm, height 6 cm) [1]

Section D: Application and Problem Solving

Question 8 [2 Marks]

A playground flag is in the shape of a right-angled triangle.

The vertical height of the flag is 40 cm and the base is 30 cm.

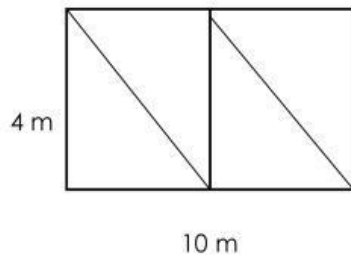
Calculate the surface area of one side of the flag. Show your working.

Answer: _____ cm^2

Question 9 (TWM.02 Generalising) [2 Marks]

A large rectangular board measures 10 m by 4 m.

It is cut into **four identical** right-angled triangles.



(a) Calculate the total area of the board. [1]

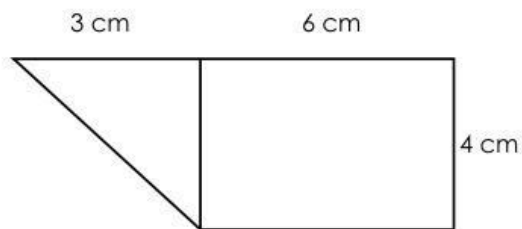
Answer: _____ m^2

(b) Calculate the area of **one** of the right-angled triangles. [1]

Answer: _____ m^2

Question 10 [3 Marks]

Look at the composite shape below, made of a rectangle and a right-angled triangle.



(a) Calculate the area of the rectangle. [1]

Answer: _____ cm^2

(b) Calculate the area of the right-angled triangle. [1]

Answer: _____ cm^2

(c) Calculate the **total area** of the combined shape. [1]

Answer: _____ cm^2