Stage 6 Cambridge Primary Mathematics Homework

Tuesday 15 September 2026

Learning Objective Covered:

- **6Gg.07:** Understand the relationship between the area of 2D shapes and the surface area of 3D shapes.

Instructions: Answer the questions below. Write your final answers clearly in the spaces provided.

Questions

1. The flat 2D shapes that make up the outer boundary of a 3D shape with straight edges are called _____.
   (1 mark)
2. A cube is made up of _____ identical square faces.
   (1 mark)
3. True or False: A cylinder has three flat faces. _____
   (1 mark)
4. A square face on a cube has a side length of 3 cm.
   a) Calculate the area of one square face: _____ cm^2 *(1 mark)*
   b) Calculate the total surface area of the cube: _____ cm^2 *(1 mark)*
5. The area of one face of a cube is 25 cm^2. What is the total surface area of the cube?
   _____ cm^2
   (1 mark)
6. A rectangular prism (cuboid) has six faces made of 2D rectangles. If the areas of three meeting faces are 10 cm^2, 15 cm^2, and 6 cm^2, what is the total surface area of the cuboid? _____ cm^2
   (1 mark)
7. A triangular prism has 2 identical triangular faces (each with an area of 6 cm^2) and 3 rectangular faces (each with an area of 20 cm^2). Calculate its total surface area.
   _____ cm^2
   (1 mark)
8. A learner incorrectly states that a cylinder has 3 flat faces because it has a curved surface. Complete the correction:
   Curved surfaces are not faces. A face on a 3D shape must always be _____.
   (2 marks)