Surface Area

The surface area of any solid figure can be found by adding the areas of all its faces.

To find the surface area of a rectangular prism:

Step 1: Identify the faces.
The rectangular prism has 6 faces—top, bottom, right side, left side, front, and back.

Step 2: Find the area of each face.
To find the area of each face list the measurements and multiply.

- top = 4 \times 12 = 48 \text{ m}^2
- bottom = 4 \times 12 = 48 \text{ m}^2
- right side = 2 \times 4 = 8 \text{ m}^2
- left side = 2 \times 4 = 8 \text{ m}^2
- front = 2 \times 12 = 24 \text{ m}^2
- back = 2 \times 12 = 24 \text{ m}^2

Step 3: Find the sum of the areas of each face.

\[ 48 + 48 + 8 + 8 + 24 + 24 = 96 + 16 + 48 = 160 \]

The surface area of the rectangular prism is 160 \text{ m}^2.

Predict what solid each net will make. Then determine the surface area of the solid figure. Each square is 1 cm².

1. 2.

Determine the surface area of each solid figure.

3. 4.