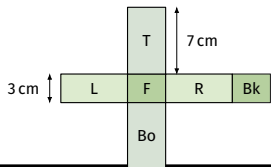


Start Tasks

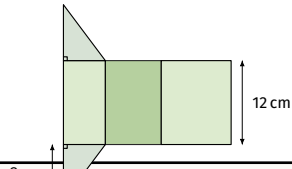


Combine net dimensions with area and reasoning to solve each problem.

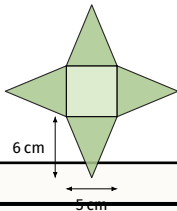
1.



2.



3.



4. A cube net has total area 150 cm^2 . Work out the edge length of the cube.

all 5 faces.

Start Tasks



Combine net dimensions with area and reasoning to solve each problem.

5. A closed cuboid box needs 220 cm^2 of card. If its base is 10 cm by 5 cm, find its height.

6. A manufacturer compares two cuboid nets: Box A is 8 cm by 6 cm by 4 cm and Box B is 12 cm by 4 cm by 4 cm. Which net uses less card, and by how much?

7. A triangular prism net has a right-angled triangular cross-section with legs 9 cm and 12 cm, and length 20 cm. Find the total surface area of the net.

8. Explain why a square-based pyramid's net cannot be made from 5 identical squares, and state what shapes are needed instead.

Start Tasks



Combine net dimensions with area and reasoning to solve each problem.

9. A cube's net has a total area of 96 cm^2 . Find the volume of the cube.

10. A cuboid net is drawn with faces 6 cm by 4 cm, 6 cm by 3 cm, and 4 cm by 3 cm (one of each pair). Find the volume of the cuboid.

11. A gift box designer wants a triangular prism net (base 5 cm, height 12 cm, hypotenuse 13 cm) to fit on a single sheet of card 60 cm by 40 cm. Find the maximum length the prism can be so the net still fits, **showing your reasoning.**

12. Two students each draw a valid net for the same square-based pyramid, but their nets look different on the page. Explain what property both nets must share, and what may differ.