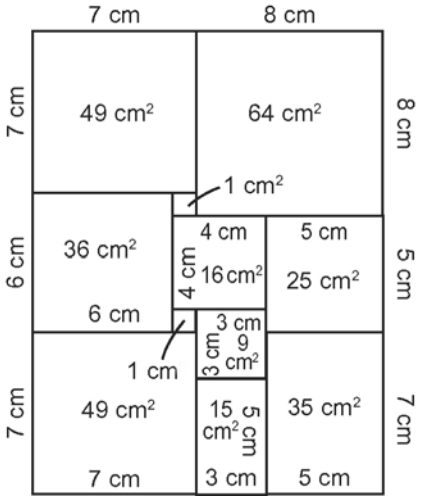
ML8 Chapter 5 Problems of the Week Answers

BLM 5–4 Chapter 5 Problems of the Week

1. The total surface area of the shape is: 20 cm × 15 cm = 300 cm^2.



2. Answers will vary. Example: The two Hula Hoops® represent the top and bottom of the cylinder. It is easy to measure the diameter of the hoops, calculate the area, and measure the circumference (use a string). With the zipper closed, the sleeping bag curves around the hoops to form the cylinder. With the zipper open, the curved face of the cylinder can be flattened out to form a rectangle of height *h*, and length *l* equal to the circumference of the hoop. The entire surface area is a total of the area of the two circles and the rectangle, just as the formula suggests.

3. 81 cm^2. The original square was 9 cm × 9 cm, with a perimeter of 36 cm. When folded in half along one of the edges to form a rectangle, two edges become 4.5 cm, resulting in a perimeter of 2(4.5 cm + 9 cm) = 27 cm.

4. There are six possible measurements for the containers if orientation does not count: 2 cm × 2 cm × 48 cm; 4 cm × 2 cm × 24 cm; (This would be the same as 2 cm × 4 cm × 24 cm.); 6 cm × 2 cm × 16 cm; 8 cm × 2 cm × 12 cm; 4 cm × 4 cm × 12 cm; 4 cm × 6 cm × 8 cm.