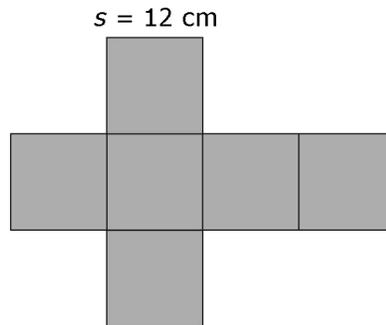
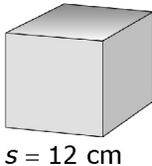


## Chapter 3 Math Link: Wrap It Up!

This worksheet will help you with the Wrap It Up! on page 123.

1. Below is a net for each solid. Use the net to calculate the surface area of each solid.

**a) Cube**



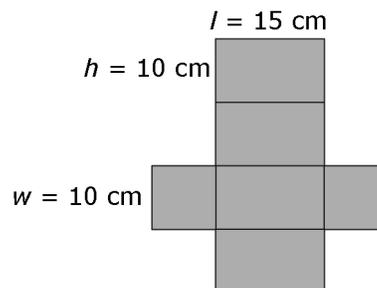
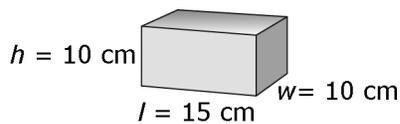
$$S.A. = 6 \times \text{area of square face}$$

$$S.A. = 6 \times \underline{\quad} \times \underline{\quad}$$

$$S.A. = 6 \times \underline{\quad}^2$$

$$S.A. = \underline{\quad} \text{ cm}^2$$

**b) Square-based rectangular prism**



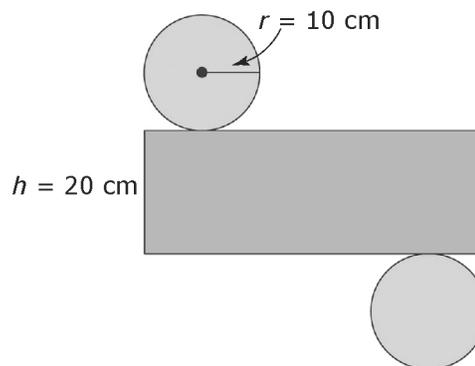
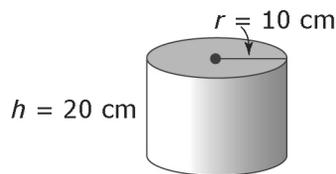
$$S.A. = 4 \times \text{area of rectangular face} + 2 \times \text{area of square face}$$

$$S.A. = 4 \times \underline{\quad} \times \underline{\quad} + 2 \times \underline{\quad} \times \underline{\quad}$$

$$S.A. = 4 \times \underline{\quad} \times \underline{\quad} + 2 \times \underline{\quad}^2$$

$$S.A. = \underline{\quad} + \underline{\quad}$$

$$S.A. = \underline{\quad} \text{ cm}^2$$

**c) Cylinder**

S.A. =  $2 \times$  area of circular end + area of rectangular wraparound

$$S.A. = 2 \times \pi \times \underline{\hspace{1cm}}^2 + 2 \times \pi \times \underline{\hspace{1cm}} \times \underline{\hspace{1cm}}$$

$$S.A. = 2 \times \pi \times \underline{\hspace{1cm}}^2 + 2 \times \pi \times \underline{\hspace{1cm}}^2$$

$$S.A. = \underline{\hspace{1cm}} + \underline{\hspace{1cm}}$$

S.A. = \_\_\_\_\_ cm<sup>2</sup> Express to the nearest hundredth of a square centimetre.

**2. Calculate the volume of each solid.****a) Cube**

Volume = area of square face  $\times$  height

$$\text{Volume} = \underline{\hspace{1cm}} \times \underline{\hspace{1cm}} \times \underline{\hspace{1cm}}$$

$$\text{Volume} = \underline{\hspace{1cm}}^3$$

$$\text{Volume} = \underline{\hspace{1cm}} \text{ cm}^3$$

**b) Square-based rectangular prism**

Volume = area of square face  $\times$  height

$$\text{Volume} = \underline{\hspace{1cm}} \times \underline{\hspace{1cm}} \times \underline{\hspace{1cm}}$$

$$\text{Volume} = \underline{\hspace{1cm}}^2 \times \underline{\hspace{1cm}}$$

$$\text{Volume} = \underline{\hspace{1cm}} \text{ cm}^3$$

**c) Cylinder**

Volume = area of circular face  $\times$  the height

$$\text{Volume} = \pi \times \underline{\hspace{1cm}}^2 \times \underline{\hspace{1cm}}$$

Volume = \_\_\_\_\_ cm<sup>3</sup> Express to the nearest hundredth of a cubic centimetre.

**3. a) Create each of the nets shown above, using construction paper or other heavy paper. Make as many of each one as you wish.****b) Build each shape.****c) Use your shapes to make a mobile. Use colour and creativity!**