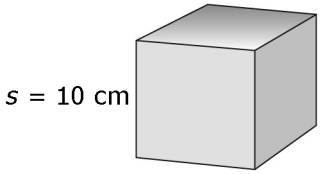
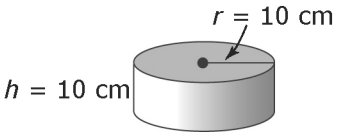
Name: _____ Date: _____

BLM 3–9

Section 3.3 Math Link

This worksheet will help you with the Math Link on page 113.
The cube has a side length, *s*, of 10 cm. The cylinder has a height, *h*, of 10 cm and a radius, *r*, of 10 cm.





1. Follow the steps to calculate the surface area of each shape.

Cube

S.A. = 6 × area of one square face

S.A. = 6 × _____ × _____ Use the variable in the diagram.

S.A. = 6 × _____^{2}

S.A. = 6 × _____^{2} Substitute.

S.A. = _____ cm^2

Cylinder

S.A. = 2 × area of circular end + area of rectangular wraparound

S.A. = 2 × π × _____^{2} + 2 × π × _____ × ____ Use the variables in the diagrams.

S.A. = 2 × π × _____^{2} + 2 × π × _____^{2}

S.A. = 2 × π × _____^{2} + 2 × π × _____^{2} Substitute.

S.A. = _____ + _____

S.A. = _____ cm^2 Express to the nearest tenth of a square centimetre.

2. Determine the difference in the surface areas of the shapes.

Difference = surface area of _____ – surface area of _____

Difference = _____ – _____

Difference = _____ cm^2

Which shape requires more material? _____

How much more? _____ cm^2

3. Determine the total surface area of the shapes.

Total = surface area of _____ + surface area of _____

Total = _____ + _____

Total = _____ cm^2