Name: _____ Date: _____

BLM 5–14

# Section 5.4 Extra Practice

*For #1 and #2, fill in each blank.*

**1. a)** The net of a cylinder is made up of one _____ and two _____.

**b)** The width of the rectangle in the net of a cylinder is equal to the _____ of the circle.

**2.** The radius of a circle is _____ the diameter.

**3.** Give the formula for the surface area of a cylinder.

*S.A.* =

**4.** Estimate the total surface area of each cylinder. Show your work.

| Radius | Height | Area of One Circle | Area of Two Circles | Area of Rectangle | Total Surface Area |
|---|---|---|---|---|---|
| Example: 2.8 cm | 10 cm | $\pi \times r^2 \approx 3 \times (3)^2$ $\approx 3 \times 9$ $\approx 27$ cm$^2$ | 54 cm$^2$ | $l \times w$ $\approx (\pi \times d) \times w$ $\approx 3 \times 6 \times 10$ $\approx 180$ cm$^2$ | $180 + 54$ $= 234$ cm$^2$ |
| **a)** 5 cm | 6 cm | | | | |
| **b)** 6.2 cm | 12.3 cm | | | | |
| **c)** 10.7 cm | 17.4 cm | | | | |

**5.** Use the formula for the surface area of a cylinder to calculate the total surface area of each cylinder to the nearest hundredth of a centimetre. Use 3.14 for $\pi$. Show your work.

| Radius | Height | Calculation $S.A. = 2 \times (\pi \times r^2) + (\pi \times d \times h)$ | Total Surface Area |
|---|---|---|---|
| Example: 2.8 cm | 10 cm | $S.A. = 2 \times (3.14 \times 7.84) + 3.14 \times 5.6 \times 10$ $= 49.24 + 175.84$ | 225.08 cm$^2$ |
| **a)** 5 cm | 6 cm | | |
| **b)** 6.2 cm | 12.3 cm | | |
| **c)** 10.7 cm | 17.4 cm | | |