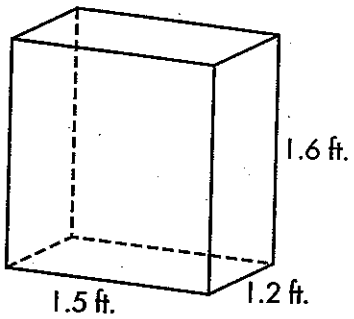
NAME _____

Lesson 11.8 Surface Area (Rectangular Solids)

The **surface area** of a solid is the sum of the areas of all the faces (or surfaces of the solid). The surface area of a rectangular solid can be found by the formula $SA = 2\ell w + 2\ell h + 2wh$.



$SA = 2(1.5)(1.2) + 2(1.5)(1.6) + 2(1.2)(1.6)$

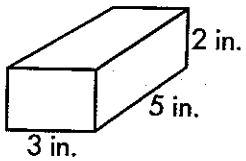
$SA = 3.6 + 4.8 + 3.84$

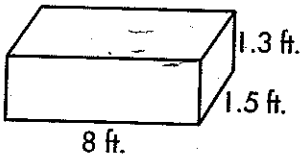
$SA = 12.24$ square feet

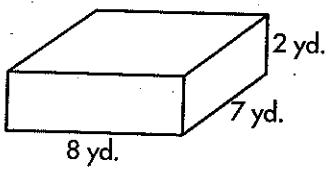
Find the surface area of each figure.

a **b** **c**

1.

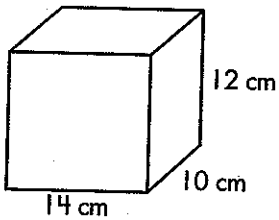


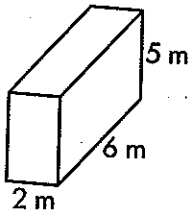


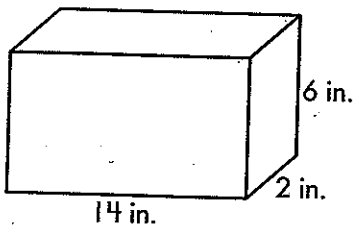


_____ square inches _____ square feet _____ square yards

2.

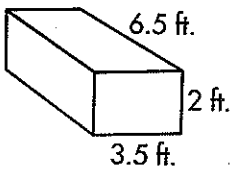


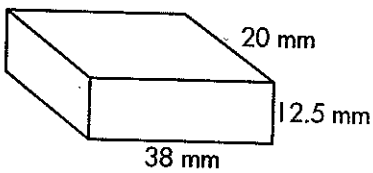


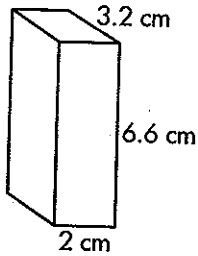


_____ square centimeters _____ square meters _____ square inches

3.







_____ square feet _____ square millimeters _____ square centimeters

NAME _____

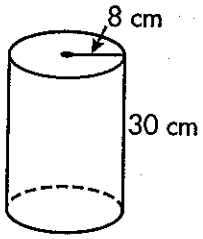
Lesson 11.12 Surface Area (Cylinders)

A cylinder can be represented on a flat surface as two circles for the bases and a rectangle. The height of the cylinder is the width of the rectangle. The circumference of the base is the length. The surface area is the sum of the area of these three surfaces. It is found by the formula $2\pi r^2 + 2\pi rh$.

$SA = 2(3.14)(8)(8) + 2(3.14)(8)(30)$

$SA = 401.92 \quad + 1507.2$

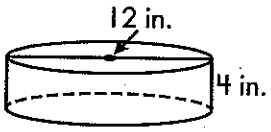
$SA = 1909.12$ square centimeters

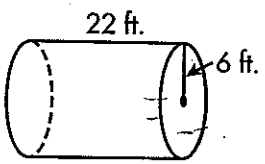


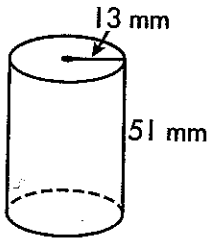
Find the surface area of each cylinder. Use 3.14 for π.

a **b** **c**

1.

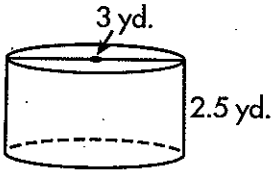


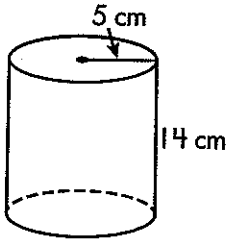


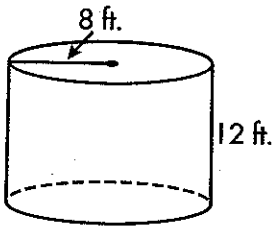


_____ square inches _____ square feet _____ square millimeters

2.

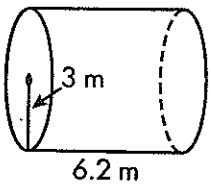


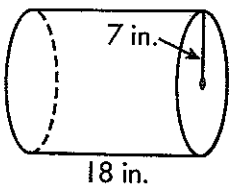


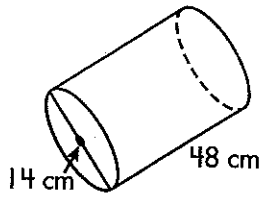


_____ square yards _____ square centimeters _____ square feet

3.







_____ square meters _____ square inches _____ square centimeters