Name: _____   Date: _____

Practice: Surface Area and Volume of Cylinders
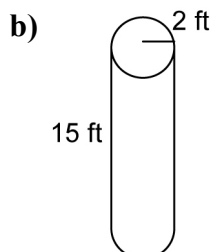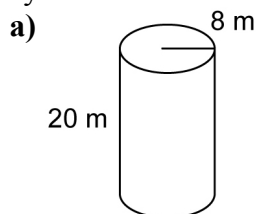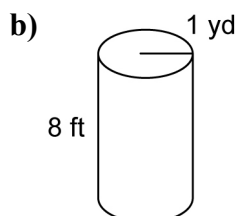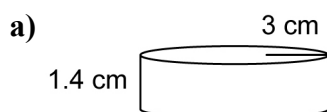
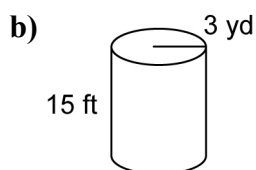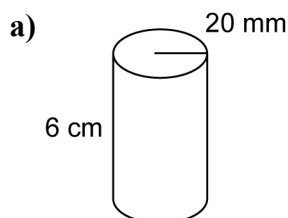**1.** Find the surface area and volume of each cylinder.

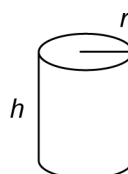**a)** 8 m 20 m

b) 2 ft 15 ft

c) 4.5 mm 5 mm

d) 2.8 cm 8 cm
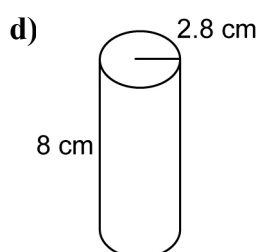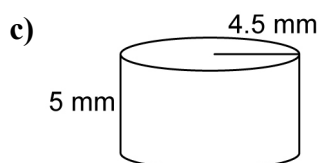
2. Find the surface area of each cylinder.

a) 3 cm 1.4 cm

b) 1 yd 8 ft

3. Find the volume of each cylinder.

a) 20 mm 6 cm

b) 3 yd 15 ft

4. Explain how each change affects the volume of the cylinder.

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a) The height of the cylinder is doubled.
b) The radius is doubled.
c) The radius is doubled and the height of the cylinder is decreased by one-half.
d) The height of the cylinder is doubled and the radius is decreased by one-half.

5. The cylindrical drum inside a clothes dryer has radius 9 in. and depth 18 in. Find the volume of the drum.

18 in 9 in
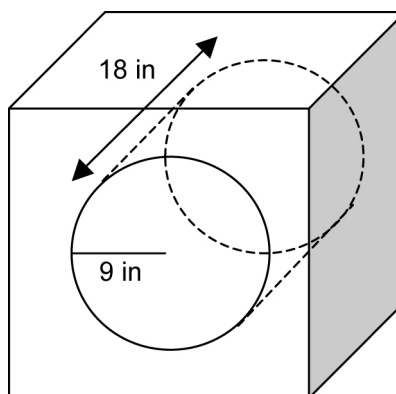
6. Water flows through a copper pipe 2 m long with an inner radius of 3 cm and an outer radius of 3.2 cm.

2 m 3 cm 3.2 cm
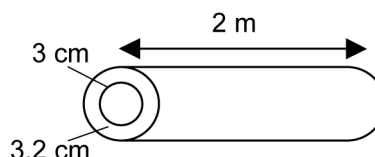
a) What is the volume of the water that would fill the copper pipe?
b) What is the volume of copper used to construct the pipe?