

# SURFACE AREA OF A CYLINDER

NAME: \_\_\_\_\_

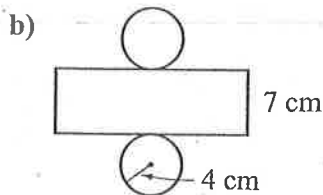
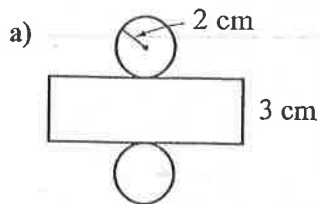
## 4 Exercise Set

1. Find the surface area of the cylinder with the given dimensions. Give exact answers and approximations to two decimal places.

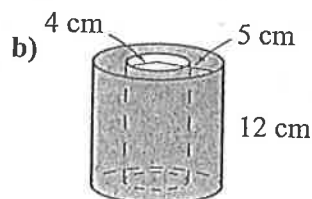
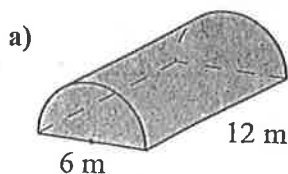
a)  $r = 3$  cm  
 $h = 5$  cm

b)  $r = 7$  cm  
 $h = 5$  cm

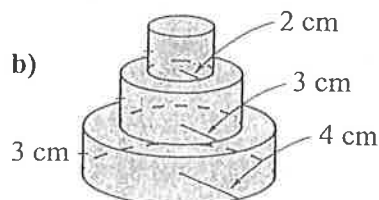
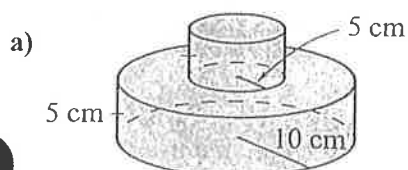
2. Find the area of each net. Leave the answer in terms of  $\pi$ .



3. Find the surface area of each figure. Leave the answer in terms of  $\pi$ .



4. Find the surface area of each compound cylinder.



5. Find the surface area of a cylinder with the given measurements.

a) height = 8 cm, circumference =  $8\pi$  cm

b) height = 6 m, circumference =  $12\pi$  m

6. If cylinder  $A$  has a diameter of 6 cm, with a height of 4 cm, and cylinder  $B$  has a diameter of 4 cm with a height of 6 cm:

a) Which cylinder has the greatest surface area? By what amount?

b) What new height of cylinder  $B$  would make its surface area the same as cylinder  $A$ ?

7. A cylinder water storage tank with no top is 5 m high and 12 m in diameter. It costs \$1.25 per square metre to paint the outside with paint. Find the cost of painting the cylinder.

8. What area of pavement is covered by 5 revolutions of a roller 3.6 m wide, with a radius of 1.2 m?

9. Which is the bigger slice of pie?

i)  $\frac{1}{3}$  of a 6" pie    ii)  $\frac{1}{5}$  of a 8" pie

iii)  $\frac{1}{8}$  of a 10" pie

10. Which is the best buy for a slice of pizza?

i)  $\frac{1}{4}$  pizza for \$2.25    ii)  $\frac{1}{6}$  pizza for \$1.60

iii)  $\frac{1}{8}$  pizza for \$1.25