

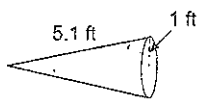
cone =  $\pi r^2 + \pi r l$     cylinder =  $2\pi r^2 + 2\pi r h$     sphere =  $4\pi r^2$

Surface Area of Cylinders, Cones and Spheres

Find the surface area of each figure. Round your answers to the nearest tenth, if necessary.

Leave your answers in terms of  $\pi$  for answers that contain  $\pi$ .

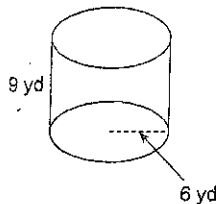
1)



$$\pi(5.1)^2 + \pi(5.1)(1)$$

$$6.1\pi$$

2)

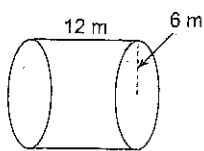


$$2\pi(6)^2 + 2\pi(6)(9)$$

$$72\pi + 108\pi$$

$$180\pi \text{ yd}$$

3)

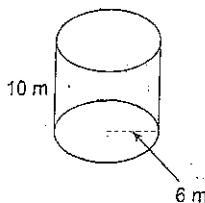


$$2\pi(6)^2 + 2\pi(6)(12)$$

$$72\pi + 144\pi$$

$$216\pi$$

4)

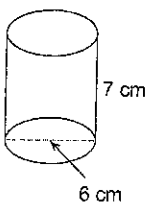


$$2\pi(6)^2 + 2\pi(6)(10)$$

$$72\pi + 120\pi$$

$$192\pi$$

5)

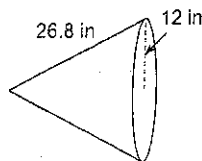


$$2\pi(3)^2 + 2\pi(3)(7)$$

$$18\pi + 42\pi$$

$$60\pi$$

6)

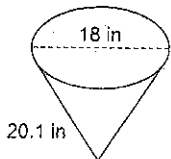


$$\pi(12)^2 + \pi(12)(26.8)$$

$$144\pi + 321.6\pi$$

$$465.6\pi$$

7)

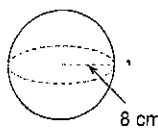


$$\pi(9)^2 + \pi(9)(20.1)$$

$$81\pi + 180.9\pi$$

$$261.9\pi$$

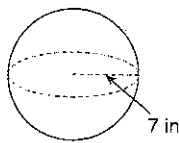
8)



$$4\pi(8)^2$$

$$256\pi$$

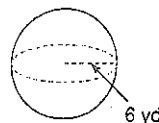
9)



$$4\pi(7)^2$$

$$196\pi$$

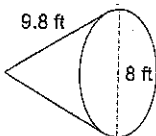
10)



$$4\pi(6)^2$$

$$144\pi$$

11)

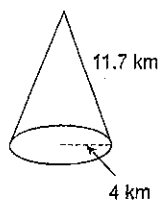


$$\pi(4)^2 + \pi(4)(9.8)$$

$$16\pi + 39.2\pi$$

$$55.2\pi$$

12)

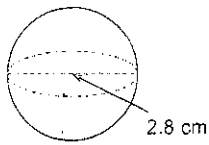


$$\pi(4)^2 + \pi(4)(11.7)$$

$$16\pi + 46.8\pi$$

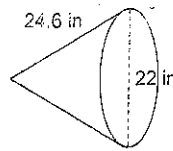
$$62.8\pi$$

13)



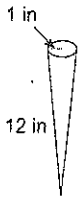
$$7.84 \pi$$

14)



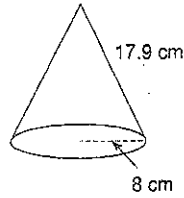
$$391.6 \pi$$

15)



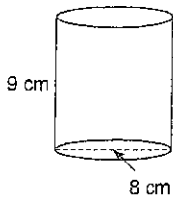
$$13 \pi^2$$

16)



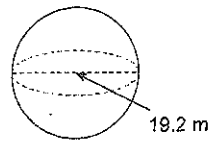
$$207.2 \pi$$

17)



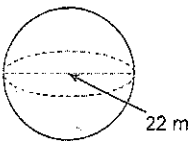
$$104 \pi$$

18)



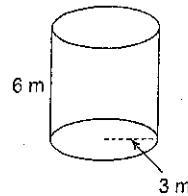
$$368.6 \pi$$
~~$$1474.56 \pi$$~~

19)



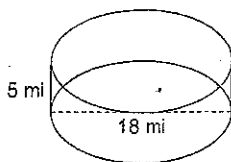
$$484 \pi$$

20)



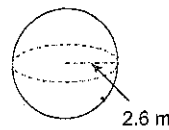
$$54 \pi$$

21)



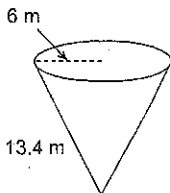
$$252 \pi$$

22)



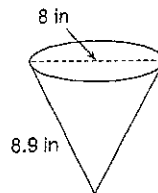
$$27.04 \pi$$

23)



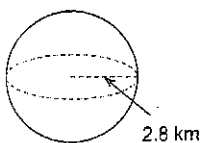
$$116.4 \pi$$

24)



$$51.6 \pi$$

25)



$$31.36 \pi$$

## Answers to Surface Area of Cylinders, Cones and Spheres (ID: 1)

- |                            |                             |                            |                             |
|----------------------------|-----------------------------|----------------------------|-----------------------------|
| 1) $6.1\pi \text{ ft}^2$   | 2) $180\pi \text{ yd}^2$    | 3) $216\pi \text{ m}^2$    | 4) $192\pi \text{ m}^2$     |
| 5) $60\pi \text{ cm}^2$    | 6) $465.6\pi \text{ in}^2$  | 7) $261.9\pi \text{ in}^2$ | 8) $256\pi \text{ cm}^2$    |
| 9) $196\pi \text{ in}^2$   | 10) $144\pi \text{ yd}^2$   | 11) $55.2\pi \text{ ft}^2$ | 12) $62.8\pi \text{ km}^2$  |
| 13) $7.8\pi \text{ cm}^2$  | 14) $391.6\pi \text{ in}^2$ | 15) $13\pi \text{ in}^2$   | 16) $207.2\pi \text{ cm}^2$ |
| 17) $104\pi \text{ cm}^2$  | 18) $368.6\pi \text{ m}^2$  | 19) $484\pi \text{ m}^2$   | 20) $54\pi \text{ m}^2$     |
| 21) $252\pi \text{ mi}^2$  | 22) $27\pi \text{ m}^2$     | 23) $116.4\pi \text{ m}^2$ | 24) $51.6\pi \text{ in}^2$  |
| 25) $31.4\pi \text{ km}^2$ |                             |                            |                             |