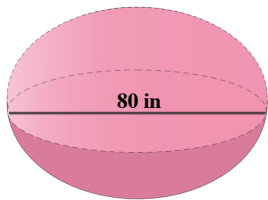


Answer the following. Show your solutions.

Solve for the surface area of the sphere below if its diameter measures 80 inches. Use 3.14 for  $\pi$ .

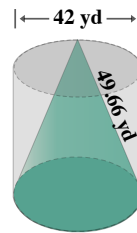


$$\begin{aligned} S &= 4\pi r^2 \\ &= 4(3.14)(40)^2 \\ &= 20096 \end{aligned}$$

20096 in<sup>2</sup>

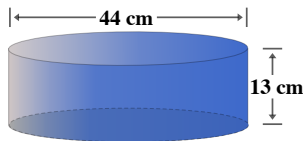
Surface Area

A right circular cylinder and a cone have an equal height and diameter as shown below. Find the surface area of the cone. Use 3.14 for  $\pi$ .



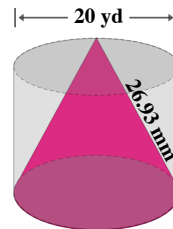

Surface Area

What is the volume of the cylinder below? Dimensions are in centimeters. Use 3.14 for  $\pi$ .



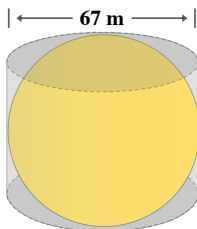

Volume

What is the surface area of the cone inside the cylinder if their heights and diameters are equal? Use 3.14 for  $\pi$ .



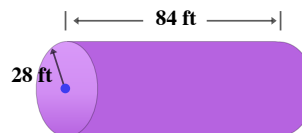

Surface Area

What is the volume of the sphere below if it fits just exactly in the cylinder? Use 3.14 for  $\pi$ .

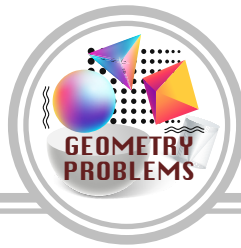



Volume

Find the surface area of this right rectangular cylinder below. Use 3.14 for  $\pi$ .

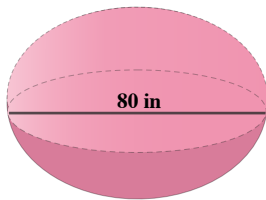



Surface Area



Answer the following. Show your solutions.

Solve for the surface area of the sphere below if its diameter measures 80 inches. Use 3.14 for  $\pi$ .

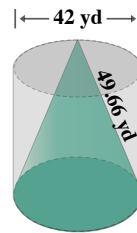


$$\begin{aligned} S &= 4\pi r^2 \\ &= 4(3.14)(40)^2 \\ &= 20096 \end{aligned}$$

**20096 in<sup>2</sup>**

Surface Area

A right circular cylinder and a cone have an equal height and diameter as shown below. Find the surface area of the cone. Use 3.14 for  $\pi$ .

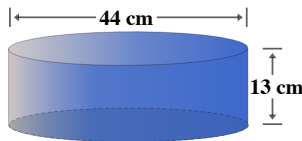


$$\begin{aligned} S &= \pi r l + \pi r^2 \\ &= 3.14 (21)(49.66) \\ &\quad + (3.14)(21)^2 \\ &= 3274.58 + 1384.74 \\ &= 4659.32 \end{aligned}$$

**4659.32 yd<sup>2</sup>**

Surface Area

What is the volume of the cylinder below? Dimensions are in centimeters. Use 3.14 for  $\pi$ .

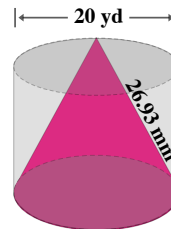


$$\begin{aligned} V &= \pi r^2 h \\ &= 3.14 (22)^2 (13) \\ &= 19756.88 \end{aligned}$$

**19756.88 cm<sup>3</sup>**

Volume

What is the surface area of the cone inside the cylinder if their heights and diameters are equal? Use 3.14 for  $\pi$ .

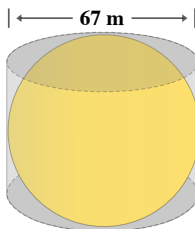


$$\begin{aligned} S &= \pi r l + \pi r^2 \\ &= 3.14(10)(26.93) \\ &\quad + (3.14)(10)^2 \\ &= 845.60 + 314 \\ &= 1159.6 \end{aligned}$$

**1159.6 mm<sup>2</sup>**

Surface Area

What is the volume of the sphere below if it fits just exactly in the cylinder? Use 3.14 for  $\pi$ .

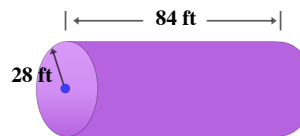


$$\begin{aligned} V &= \frac{4}{3} \pi r^3 \\ &= \frac{4}{3} (3.14) (33.5)^3 \\ &= 157399.30 \end{aligned}$$

**157399.30 m<sup>3</sup>**

Volume

Find the surface area of this right rectangular cylinder below. Use 3.14 for  $\pi$ .



$$\begin{aligned} S &= 2\pi r h + 2\pi r^2 \\ &= 2(3.14)(14)(28) \\ &\quad + 2(3.14)(14)^2 \\ &= 7385.28 + 1230.88 \\ &= 8616.16 \end{aligned}$$

**8616.16 ft<sup>2</sup>**

Surface Area