

Pokeball Size

$$\text{Surface Area} = 4 * \pi * \text{radius}^2$$

$$R = d/2$$

- Small
 - Diameter 1.57 inches
 - Radius .785 inches
 - 2.03 inches³ for volume
- Normal Size
 - Diameter 3.15 inches
 - Radius 1.575 inches
 - 16.37 inches³ for volume

Coit Tower Size

$$\text{Height} = 210\text{ft}$$

$$\text{Diameter at base} = 38\text{ft}$$

Volume for Floor 1-2

$$\text{Volume of rectangle} = l * w * h$$

$$\text{Volume of cylinder tank} = \pi * r^2 * h$$

- Diameter = 38ft
- Height = 16ft
- Unusable diameter = 22ft
 - Un-usable volume = 7744 ft³
- Total cylinder volume = 18,146 ft³
- Usable = total volume – unusable volume = 18,146 – 7744 = 10,402 ft³
- 10,402 ft³ / 2.03 inches³ = 8,854,510.34
- 10,402 ft³ / 16.37 inches³ = 1,098,024.19

Volume for Floor 3-9

- Diameter = 37.25ft
- Height = 16ft
- Unusable Diameter = 18.63ft
 - Un-usable volume = 4,366.18ft³
- Total cylinder volume = 17,436.62ft³
- Usable = 17,436.62 – 4,366.18 = 13,070.44 ft³
- 13,070.44 ft³ / 2.03 inches³ = 11,125,970.6
- 13,070.44 ft³ / 16.37 inches³ = 1,379,701.91

Volume for Floor 10-13

- Diameter = 36.5ft

- Height = 16ft
- Unusable Diameter = 18.25ft
 - Un-usable Volume = 4,185.39 ft³
- Total Cylinder Volume = 16, 741.55 ft³
- Usable = 16, 741.55 - 4,185.39 = 12,556.16 ft³
- 12,556.16 ft³ / 2.03 inches³ = 10,688,199.3
- 12,556.16 ft³ / 16.37 inches³ = 1,325,415.06