$$V_{cylinder} = \pi R^2 \cdot H$$

D=12 ft – diameter

H = 3 ft – high

$$\pi = 3.14$$

$R = \frac{D}{2} = \frac{12}{2} = 6$ ft

$V = 3.14 \cdot 6^2 \cdot 3 = 339{,}12$ cubic feet

if 20 balls can fit into 1 cubic foot then there are approximately $339.12 * 20 \approx 6782$ balls in cylinder ball pit