Find the weight of an iron cylinder of height 20cm and radius of the base 10cm if 1 cubic centimetre of the iron weight 8 grams

Solution:

Volume of a cylinder is

$$V = \pi R^2 H$$

The weight of cylinder is

$$W = \rho V$$

$$R = 10\ cm$$

$$H = 20\ cm$$

$$\rho = 8\ gr/cm^3$$

So the weight of cylinder is

$$W = 8 * \pi * 10^2 * 20 = 50{,}265\ gr$$

Answer: The weight of an iron cylinder is $50{,}265\ gr$.