

'A New Power Station'

$$\begin{aligned} \text{a) volume} &= \frac{\text{mass}}{\text{density}} = 1.73 \times 10^4 \div 1.98 \\ &= 8737.373737 \\ &= 8740 \text{ m}^3 \end{aligned} \quad (2)$$

$$\begin{aligned} \text{b) } &8737.373737 \times \frac{10000}{40} \\ &= 2.1843434 \times 10^7 \\ &= 2.18 \times 10^7 \text{ m}^3 \end{aligned} \quad (2)$$

$$\begin{aligned} \text{c) Volume} &= \frac{\text{mass}}{\text{density}} = 1.73 \times 10^4 \div 1100 \\ &= 15.7 \text{ m}^3 \end{aligned} \quad (2)$$

$$\begin{aligned} \text{d) } &1150 \times 150 \\ &= 172500 \text{ m}^3 \\ &172500 \div 15.7 \\ &= 10968.208 \\ &\text{Assuming every year has 365 days } 10968.208 \div 365 \\ &= \mathbf{30 \text{ years}} \end{aligned} \quad (3)$$