

W 24988

$$\rho = \frac{4mg}{\pi D^2}$$

$$m = 1200,$$

$$\pi = 3 \quad (\text{сумма!})$$

$$g = 10$$

$$\rho \leq 400 \text{ кг/м}^3$$

$$\Rightarrow \frac{4 \cdot 1200 \cdot 10}{3 \cdot D^2} \leq 400$$

$$\frac{48}{3 \cdot D^2} \leq 400$$

$$\frac{16}{D^2} \leq 400 \rightarrow D^2 \geq \frac{16}{400}$$

$$D^2 \geq \frac{4}{100}, \quad D^2 \geq \frac{1}{25}$$

$$D \geq \left(\frac{1}{5}\right)^2$$

$$D \geq \frac{1}{5} \text{ м} \quad \text{или} \quad D \geq 0,2$$

Ответ: 0,2