

You are permitted to use a calculator on this problem.

12. The density of the metal platinum is approximately 21.46 grams per cubic centimeter (g/cm^3). What is the approximate mass, in grams, of a bar of platinum with a volume of 100.00 cm^3 ?

$$\left(\text{density} = \frac{\text{mass}}{\text{volume}} \right)$$

- A) 21,460.00
- B) 2,146.00
- C) 214.60
- D) 21.46

Answer

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$$\text{vol} \cdot \text{density} = \frac{\text{mass}}{\text{vol}} \cdot \text{vol}$$

$$\text{mass} = (\text{vol})(\text{density})$$

$$= (100.00)(21.46)$$

$$= 2146.00$$

Answer is B