

1. Calculate the mass in grams for each of the following:

251.2 mL of gasoline ( $d = 0.690 \text{ g/mL}$ )

**173 g**

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32.5 mL of ether ( $d = 0.714 \text{ g/mL}$ )

**23.2 g**

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7.65  $\text{cm}^3$  of rock salt ( $d = 2.18 \text{ g/cm}^3$ )

**16.7 g**

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2. Calculate the volume in mL or  $\text{cm}^3$  for each of the following:

0.560 g of methanol ( $d = 0.790 \text{ g/mL}$ )

**0.709 mL**

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1.00 kg of iron ( $d = 7.87 \text{ g/cm}^3$ )

**127  $\text{cm}^3$**

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2.61 g of ammonia ( $d = 0.759 \text{ g/mL}$ )

**3.44 mL**

3. Calculate the density for each of the following:

25.1 mL of ethanol having a mass of 15.8 g

**0.629 g/mL**

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A 131.5 g bronze rectangular nugget measuring 3.55 cm x 2.50 cm x 1.75 cm

**8.48 g/cm<sup>3</sup>**

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An 11.6 g marble whose volume is 4.1 mL

**2.8 g/mL**

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4. What is the density of a nugget of Fool's Gold of a 37.51 g sample added to a graduated cylinder increased the liquid level from 50.0 mL to 62.5 mL?

**3.00 g/mL**

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5. A car battery contains 1275 mL of sulfuric acid. If the density of battery acid is 1.84 g/mL, how many grams of acid are in the battery?

**2350 g**