Name _____

Worksheet: Density calculations

1. Write down the density equation:

Make sure to write the equation, substitute in numbers, calculate answer including appropriate unit. Each question is 3 points.

2. If d = 1.2g/cm^3
   m= 120.3 grams
   what is the volume?

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3. If d = 5.4 g/cm^3
   m = 23.7 g
   what is the volume?

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4. If d = 9.2 g/cm^3
   v = 42.5cm^3
   what is the mass?

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5. If d = .4g/cm^3
   v = .30 cm^3
   what is the mass?

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6. If d = 5.6g/cm^3
   m= 11.9 grams
   what is the volume?

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7. If v = 82.8cm^3
   m= 120.3 grams
   what is the density?

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8. If d = 1.2g/cm^3
   m= 120.3 grams
   what is the volume?

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9. If d = 5.2g/cm^3
   v= 90.1cm^3
   what is the mass?

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10. If d = 3.0g/cm^3
    m= 44.4 grams
    what is the volume?

11. A mineral has a density of 3.4 g/cm$^{3.}$ Using the displacement method to find the volume, the volume of the water (alone) before the mineral was placed in the graduated cylinder was 10 cm^3 and the volume of the water and the mineral together was 19.7 cm^{3,} what is the mass of the sample? Would this mineral float or sink if it was added to water?

12. An empty graduated cylinder has a mass of 21.4grams. A liquid is added and the mass of the grad.cylinder and the liquid is 36.3g. The volume is then read to be 16.5cm^3 . What is the density of the liquid? Would this liquid float or sink if it was added to water?