

Ch 1/ PowerPoint Study– 3 Temperature-Density

Name:

Answer these questions as you are watching the videos. They are due in class.

*These questions are not just for you to answer but also to prepare you for the exam. So make sure you understand what you are writing and not just copy from the text book. **Show all work.***

1. Temperature: (use the formula given. You can skip the fractions: $5/9=0.56$ and $9/5=1.8$).

Remember: To convert F to K, you have to convert F to °C first.

a) Convert 32 °C to F

b) Convert 46.9 °F to K

2. Unit Conversion: Carry out the following unit conversions.

a) 20 mL to L

b) 3.09 kg to g

c) 3.00 cm to in (1 in = 2.54 cm)

d) 4.90 oz to mL (1 L = 33.8 oz) (Hint: convert mL to L first)

3. Density: ($d=m/v$)

a) Calculate the density of a solid that has a mass of 2.980 g and volume of 8.20 mL.

b) What is the volume of a 20.9 g solid with a density of 6.90 g/cm³? (Ans: 3.03 mL)

c) What is the weight of 23 mL of gasoline which has a density of 0.87 g/mL? (Ans: 20 g)