Chemistry CP Name: _____

Sig. Fig, Temperature Conversion and Density Quiz

State the number of significant figures represented in each of the following numbers :

1) 1.0040 _____

2) 0.00031 _____

3) 1378.9 _____

4) 100 _____

5) 10000.00 _____

Calculate the following, **round the final answer to the correct number of significant figures**:

6) 5.302
3.80
+79.324 6)_____

7) 4.657 x 98.003 x 5.87 =

7)_____

8) $(1.3 \times 10^{2})(6.40 \times 10^{-1}) =$

8)_____

9) 8.30 ÷ 0.045 =

9)_____

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Sig. Fig, Temperature Conversion and Density Quiz

Convert the following (2 points each), be sure to SHOW YOUR WORK:

10) 25°C to °F _____

11) -60 °F to K _____

12) 55 °C to K _____

13) 345 K to to °C _____

14) 265°F to °C _____

15) 265 K to °F _____

Equivalence Statements

°F = (1.8 x °C) +32 °C = (°F-32)/1.8 K= °C+ 273 °C= K-273

Chemistry CP Name: _____

Sig. Fig, Temperature Conversion and Density Quiz

The following questions are about density.

16) If I have a sample that has a volume of 33.5 cm^3 and weighs 23.5 grams. What is the density of the object?

17) My sample has a known density of 5.00 grams/ml and I have a 15 gram sample. How much space will this sample occupy?

18) I have a 25 ml sample of a substance with a known density of 14.1 g/cm^3 . What is the mass of my sample?

19) A block has the dimensions of 3.0 cm by 5.0 cm by 2.0 cm. What is the density of the block if it weighs 45 grams? (hint: Volume = LxWxH)

20) An irregular object is placed in 25 ml of water. The new reading on the flask is 45 ml. The recorded mass of the object is 13 grams. What is the density of the object?