Chapter 3 Problems V(+1) Name _____

30. Liquid nitrogen boils at 77.2 K. What is this temperature in degrees Celsius?

31. The element silver melts at 960.8ºC and boils at 2212ºC. Express these temperature in kelvins.

    960.8ºC = _____K 2212ºC = _____ K

32. State the relationship between degrees Celsius and kelvins.

33. Chocolate cookies are baked at 190 ºC. Express this temperature in kelvins.

34. Surgical instruments may be sterilized by heating at 170ºC for 1.5 hours. Convert to kelvins.

35. The boiling point of the element argon is 87 K. What is the boiling point of argon in degrees Celsius?

65. Which would melt first, germanium with a melting point of 1210 K or gold with a melting point of 1064ºC.

66. List two possible reasons for precise, but inaccurate measurements.

67. Rank these numbers from smallest to largest.
    5.3×10^{4}, 57×10^{3}, 4.9×10^{-2}, 0.0057, 5.1×10^{-3}, 0.0072×10^{2}

69. Find the relationship between the Fahrenheit and Celsius temperature scales.

70. Which is larger?
    a) 1 cg or 1 mg
    b) 1 L or 1 cL
    c) 1 cal or 1 kcal
    d) 1 ms or 1 cs
    e) 1 µL or 1 mL
    f) 1 mm^3 or 1 dm^3

72. A piece of wood sinks in gasoline but floats in ethanol. Give a range of possible densities for the wood.

Answer # 73 and 74 on the back.