**Unit Conversions Problem Set**

1. Perform the following unit conversions involving metric- metric conversions:

a. 15.3 milligrams to grams

b. 0.1544 kilometers to centimeters

c. 35.78 micrograms to nanograms

d. 55.8 cm/s to μm/hr

e. 2.7 g/cm3 to kg/m3

2. Perform the following unit conversions involving English- metric conversions:

a. 145 pounds to grams

b. 34.65 milliliters to quarts

c. 55 mi/hr to km/s

d. 7.1 kg/cm2 to lb/ft2

e. 5.6 x 103 ton/mi3 to Mg/km3 (assume US ton: 1 US ton = 2000 lb)

3. Convert the following temperatures:

a. 45.3 °F to °C

b. -2.3 °C to °F

c. 341 °C to K

d. 188 K to °C

e. 456 K to °F

4. You are given the conversion factors shown below and may assume they are exact numbers:

1 blink = 3 nods 5 sizzles = 2 squeaks

2 squeaks = 7 clangs 4 clangs = 1 ping

6 pings = 11 blinks

a. Find how many clangs there are in 2 sizzles.

b. Find how many pings are in 34 squeaks.

c. Find how many blinks are in 15 sizzles.

Note: Since the conversions were exact numbers, express all answers to one decimal place.