Name: Timothy Huang Lab section: Monday 7:50-11am

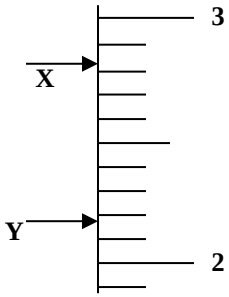
# Chem 110 Prelab: Metric Measurements

## Questions

These are due at the beginning of lab and must be completed to start the lab.

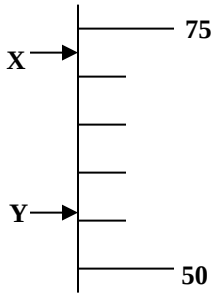
1) For the following scales (no units), determine the size of the increment, and then estimate the readings at the lines given to the appropriate number of digits.

a)



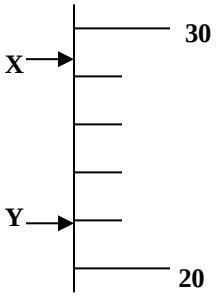

a) Increment: 0.1
b) Family: 10's
c) Precision/ a.u. 0.01
d) Reading at X: 2.81
e) Reading at Y: 2.18

b)



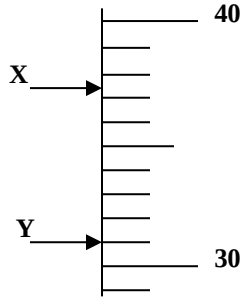

a) Increment: 5
b) Family: 5's
c) Precision/ a.u. 1
d) Reading at X: 73
e) Reading at Y: 56

c)




a) Increment: 2
b) Family: 2's
c) Precision/ a.u. 1
d) Reading at X: 29
e) Reading at Y: 22

d)




a) Increment: 1
b) Family: 10's
c) Precision/ a.u. 0.1
d) Reading at X: 37.2
e) Reading at Y: 31.0

2) What are the two main things to remember when reading a graduated cylinder?

Read the measurement from the bottom of the meniscus (the U shaped curve).
Read the measurement at eye level, don't look above or before.

3) What does it mean to "tare" and what would be a reason to do this?

Taring is when you reset the scale to read zero. This is used when you need to measure the weight of two substances in the same container. You pour the first substance in until you reach the correct weight, then you tare the scale so you can measure the second substance independently from the first substance.