

Math 310 - Dr. Miller - Activity #23: Reference Units

1. Circle the most reasonable measurement and include extra labels or explanations that helped your thinking in each case:

(a) Temperature outside today:

$60^{\circ}C$                        $18^{\circ}F$                        $18^{\circ}C$

(b) Temperature of hot coffee that's just cool enough to drink:

$120^{\circ}C$                        $120^{\circ}F$                        $100^{\circ}C$

(c) Length of your index finger:

$8cm$                        $8mm$                        $8km$

(d) Width from side to side of your classroom chair:

$18inches$                        $18cm$                        $1.8m$

(e) Weight of a cell phone:

$10 - 20g$                        $1.0 - 2.0g$                        $10 - 20kg$                        $100 - 200g$

(f) Volume of the waterfall at the Smith Center:

$2.5L$                        $2.5kL$                        $2.5mL$                        $2.5gal$

2. For each number, place a decimal point to create the most reasonable measurement:

(a) Your desktop is about 2 5 0 0 centimeters thick.

(b) It's about 5 0 0 0 kilometers from this classroom to the stadium.

(c) A snack-size bag of potato chips weighs about 5 2 0 0 grams.

(d) A typical outdoor trash can in a park can hold about 2 0 0 0 kiloliters of water.

(e) A typical dumpster can hold about 2 0 0 0 kiloliters of water.

(continued on back)

3. Circle the larger/higher measurement in each horizontal row:

- (a) 5 meters                      5 yards                      5 feet
- (b) 2 gallons                      2 liters                      2 quarts
- (c)  $6^{\circ}$  C                      refrigerator temperature                       $32^{\circ}$  F
- (d) 15 ounces                      15 grams                      15 milligrams
- (e) 8 pound                      8 kilograms                      8 ounces
- (f) 12 miles                      1.2 kilometers                      12 meters

4. Name one English/customary unit AND one metric unit that would be suitable for measuring each attribute below:

- (a) The height of our classroom
- (b) The weight of your car
- (c) The weight of a baby bird
- (d) The volume of a swimming pool
- (e) The distance from SRU to Pittsburgh
- (f) The volume of your closet
- (g) The volume of a picnic cooler/basket
- (h) The length of an eyelash