Length Lab

Name ___________________________

1. What does each unit represent?
   (a) mm = ________________________  (b) m = ________________________
   (c) cm = ________________________  (d) km = ________________________

2. How much does each one equal?
   (a) 1 m = _______ cm  (b) 1 cm = _______ mm  (c) 1 km = _______ m

3. Which measurement is the largest? Circle your answer for each pair.
   (a) 14 mm or 1 cm  (d) 145 m or 145 km
   (b) 334 m or 1 km  (e) 3.4 cm or 30 mm
   (c) 1 m or 990 cm  (f) 10 km or 1000 cm

4. Use a metric ruler or meter stick to find each measurement.
   (a) Length of the line in centimeters ______
   (b) Length of the line to the nearest centimeter ______
   (c) Height of the rectangle to the nearest millimeter ______
   (d) Width of the rectangle to the nearest millimeter ______
   (e) Radius of the circle to the nearest millimeter ______
   (f) Diameter of the circle in centimeters ______
   (g) Diameter of the circle to the nearest centimeter ______

HINT: If it says “nearest”, you need to round your answer so you don’t have a decimal point. If not, you should have one decimal point in your answer.

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(h) Volume of the box in cubic centimeters

\[ \text{________} \times \text{________} \times \text{________} = \text{________} \]

(Measure to the nearest centimeter before multiplying.)

5. Find the length of an unsharpened pencil (including eraser) in millimeters. ________

6. What is your height in centimeters? ________ What is your height in meters? _______

7. Find the distance between the two index cards in the hallway in meters. ________

8. Use your shoe and a metric ruler to complete this section. Keep your shoes on for this one!
   (a) What is the length of your shoe to the nearest centimeter? ________
   (b) How many shoes would it take (heel to toe) to make 1 meter? ________
   (c) How many shoes would it take to make 1 kilometer? ________

9. Use ten pennies and a metric ruler to complete this section.
   (a) How tall is a stack of ten pennies in centimeters? ________
   (b) How tall would a stack of 100 pennies be in centimeters? ________
   (c) How tall would a stack of 1000 pennies be in centimeters? ________

10. Circle the BEST metric unit for each.
    (a) The length of an eyelash mm cm m km
    (b) The height of a flagpole mm cm m km
    (c) The length of a strand of spaghetti mm cm m km
    (d) The distance from Chicago, IL, to Peoria, IL. mm cm m km

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Length Lab Answer Key:

1. A - millimeter, B - meter, C - centimeter, D - kilometer

2. A - 100 cm, B - 10 mm, C - 1000 m

3. A - 14 mm, B - 1 km, C - 990 cm, D - 145 km, E - 3.4 cm, F - 10 km

4. A - 14.8 cm, B - 15 cm, C - 10 mm, D - 115 mm, E - 17 mm, F - 3.4 cm, G - 3 cm

5. 9 cm x 4 cm x 2 cm = 72 cm$^3$

6. Answers will vary depending on pencil used.

7. Answers will vary.

8. Answers will vary.

9. Answers will vary. (Answer for B should be 10 times the answer for A. Answer for C should be 100 times the answer for A.)

10. A - mm, B - m, C - cm, D - km

NOTE: Allow ±1 mm or ±0.1 cm on all measurements. Check measurements on actual page provided for students. There may be slight variances depending on the printer and/or copy machine settings.