**Metric Exercises**

1. What is the basic unit of length used in the SI system? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2. What does SI stand for? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3. How many cents (pennies) are in a dollar? \_\_\_\_\_\_\_\_How many centimeters in a meter? \_\_\_\_

4. Complete this analogy: 45 cents is 0.45 dollars as 45 centimeters is \_\_\_\_\_\_\_meters

5. Complete this analogy: 5 dollars is to 500 cents as 5 meters is to \_\_\_\_\_\_\_centimeters

6. Complete this analogy: 1 grand is to 1000 dollars as 1 kilometer is to \_\_\_\_\_\_\_\_meters

7. 5000 dollars is how many grand? \_\_\_\_\_\_\_5000 meters is how many kilometers? \_\_\_\_\_\_\_\_

Match the units to the objects it would measure.

8. Which metric unit is as thin as a dime? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

9. Which metric unit would you use to measure the length of this room?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

10. Which metric unit would you use to measure the size of this paper?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

11. Which metric unit is used to measure distances between cities? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

12. Which metric unit is about the size of a yard stick? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

13. If you measured the height of the door, it would be approximately 2 \_\_\_\_\_\_\_\_\_\_.

14. If you measured your height, you probably would be between 150 and 200\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**Conversions:**

|  |  |
| --- | --- |
| 15. 67 cm = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_m16. 598 cm = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_m17. 12 m = \_\_\_\_\_\_\_\_\_\_\_\_\_\_ cm18. 500 m = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_km | 19. 128 cm = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_mm20. 45 mm = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_cm21. 5 km = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ m22. 3 km = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ m |

**Challenge: Addition and subtraction--Make sure you convert the units first before you add or subtract them.**

56 cm + 2 m = \_\_\_\_\_\_\_\_\_\_\_\_\_\_ cm 6 km + 4000 m = \_\_\_\_\_\_\_\_\_\_\_\_\_km

**Metric Lab**

Procedure:

 1. In the data table, predict the measurements in metric units.

 2. After all predictions are made, measure and record the given measurements.

 3. Convert your measurements to other metric units.

 5. Don’t forget to label everything with UNITS!

Data:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Object | Prediction(cm) | Measurement (cm) | Convert to meters | Convert to kilometers | Convert to millimeters |
| Arm Length | cm |  |  |  |  |
| Height | cm |  |  |  |  |
| Cubit(elbow to fingertip) | cm |  |  |  |  |
| Arm Span | cm |  |  |  |  |
| Digit(width of thumb) | cm |  |  |  |  |
| Foot length | cm |  |  |  |  |
| Thumb length | cm |  |  |  |  |
| Nose length | cm |  |  |  |  |
| Hand width(palm) | cm |  |  |  |  |
| Length of 10 steps | m |  |  |  |  |
| Length of one step | cm |  |  |  |  |