

Use your notes from Episode 102 to help you complete this worksheet.

Fill in all blanks of the following chart.

Property	Definition	Base Unit	Instrument(s)
length			
mass			
volume			
time			
temperature			

What two things must be included in all measurements?

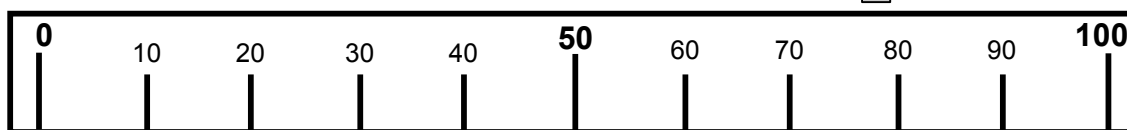
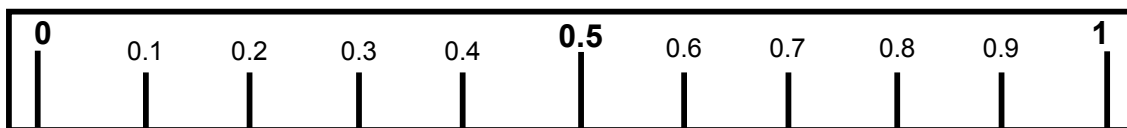
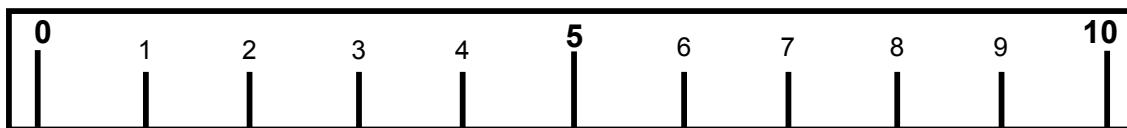
Describe the process used to find the volume of a rectangular solid.

Describe the process used to find the volume of an irregular solid such as a rock.

Describe the process used to find the mass of a liquid.

Describe the process used to measure out a specific mass of a solid.

Using correct significant digits, make the following measurements. All measurements are in centimeters (cm).



A brick measures 25 cm by 12 cm by 13 cm. What is the volume of the brick in cm^3 ? How many milliliters of water would this brick displace?

A graduated cylinder has 35.0 mL of water in it before an object is dropped inside. The new volume is 38.5 mL. What is the volume of the object in cm^3 ?

A cube measures 1.0 cm on each side. What is the volume of the cube?
If this cube is dropped into 28.0 ml of water, what will be the new volume reading on the graduated cylinder?

50 g of water is placed into a beaker. The mass of the beaker is now 115 g. What is the mass of the empty beaker?

Metrics Worksheet #2

Make the following conversions.

- | | |
|--|---|
| <p>1. 0.70 Km = _____ m</p> <p>2. 16g = _____ mg</p> <p>3. 36 cm = _____ m</p> <p>4. 75 m = _____ Km</p> <p>5. 12 L = _____ mL</p> <p>6. 325 mg = _____ g</p> <p>7. 250 mm = _____ m</p> <p>8. 1.5 Kg = _____ mg</p> <p>9. 150 cm³ = _____ mL</p> <p>10. 60 mg = _____ g</p> <p>11. 10 L = _____ mL</p> <p>12. 1 m = _____ mm</p> | <p>13. 4.5 cm = _____ mm</p> <p>14. 0.5 L = _____ mL</p> <p>15. 5500 mm = _____ m</p> <p>16. 2520 cm³ = _____ L</p> <p>17. 4.3 Kg = _____ mg</p> <p>18. 12345 Kg = _____ g</p> <p>19. 8.5 L = _____ mL</p> <p>20. 4 L = _____ mL</p> <p>21. 367 cm = _____ m</p> <p>22. 55 mg = _____ g</p> <p>23. 63 Km = _____ m</p> <p>24. 3 L = _____ mL</p> |
|--|---|

Add the following numbers by converting all numbers to the base unit and then adding.

25. 40 cm + 300 mm + 30 cm = _____
26. 10 cm + 1 m + 10 cm = _____
27. 1 Km + 1 m + 10 cm = _____
28. 425 g + 5 g + 4500 mg + 0.24 g = _____
29. 123 mL + 130 cm³ + 0.5 L = _____