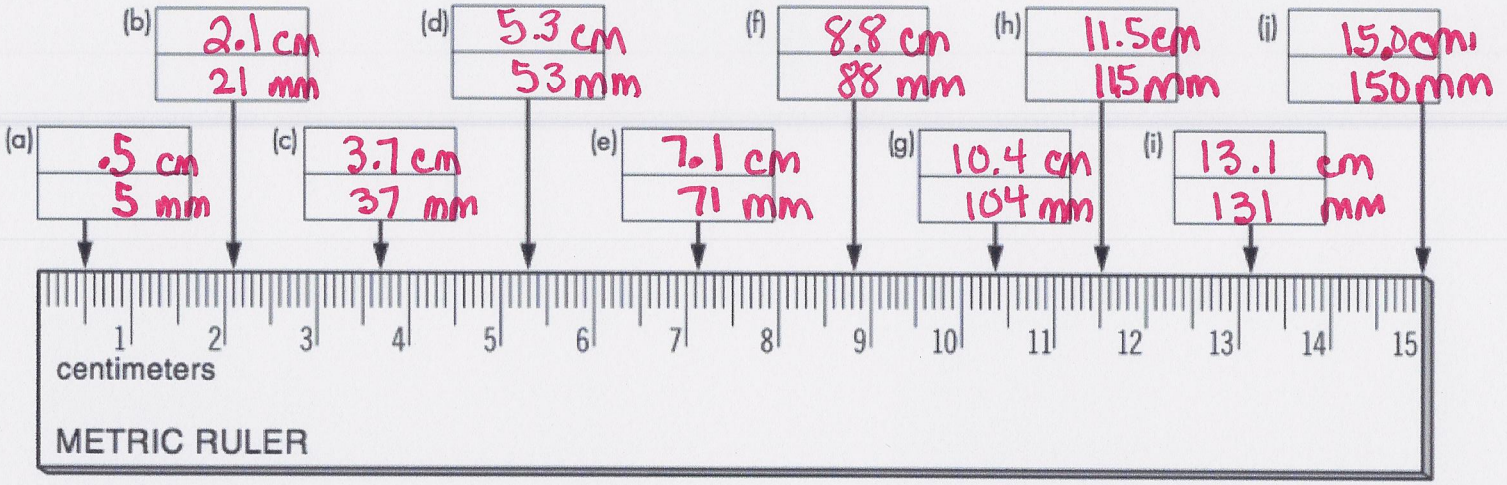
Now it's YOUR TURN!! Metric Measurement

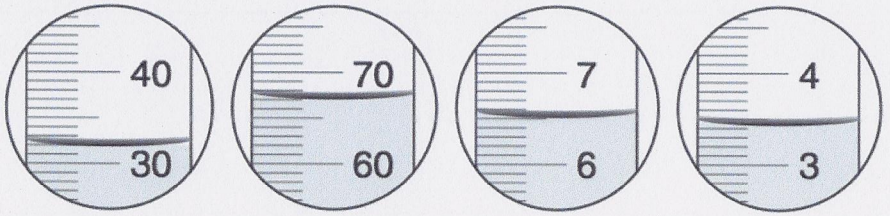
Ruler:

Now it's your turn to practice measuring with a metric ruler. In each box below, write the length from the zero edge to each arrow in both centimeters and millimeters. Check your answers below.



You Try It!

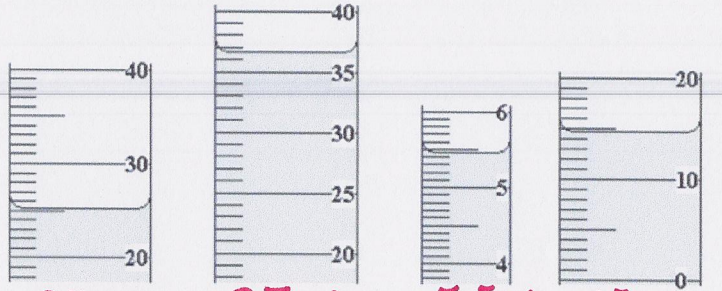
1. The following pictures show water in different graduated cylinders. What would be the correct measurement (in milliliters) for each picture? Record your answer in the space provided below each picture. Check your answers below after writing the four measurements.



(a) Volume = 32 mL (b) Volume = 67 mL (c) Volume = 6.5 mL (d) Volume = 35 mL

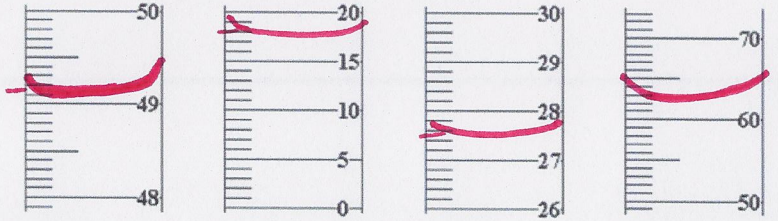
Note: If additional precision is desired, you can estimate an additional digit between the marks. For example, the bottom of the meniscus of cylinder (d) is a little less than halfway between 3.4 and 3.5. So, the next digit could be estimated and added to the reading, about 3.43 mL.

2) Determine the volume of the liquids in the following cylinders:



a) 25ml b) 37ml c) 5.5ml d) 15ml

3) Draw in the meniscus for the following readings:



a) 49.21 mL b) 18.2 mL c) 27.65 mL d) 63.8 mL

Think Celsius

Draw lines to join the temperatures on the right side of the thermometer (in degrees Celsius) to the correct descriptions on the left. To help you, the temperatures in degrees Fahrenheit are shown on the left side of the thermometer.

a) "It's hotter than a firecracker outside today."

b) "This room feels comfortable – not too hot and not too cold."

c) Isopropyl (rubbing) alcohol boils at this temperature.

d) "This is sweater weather!"

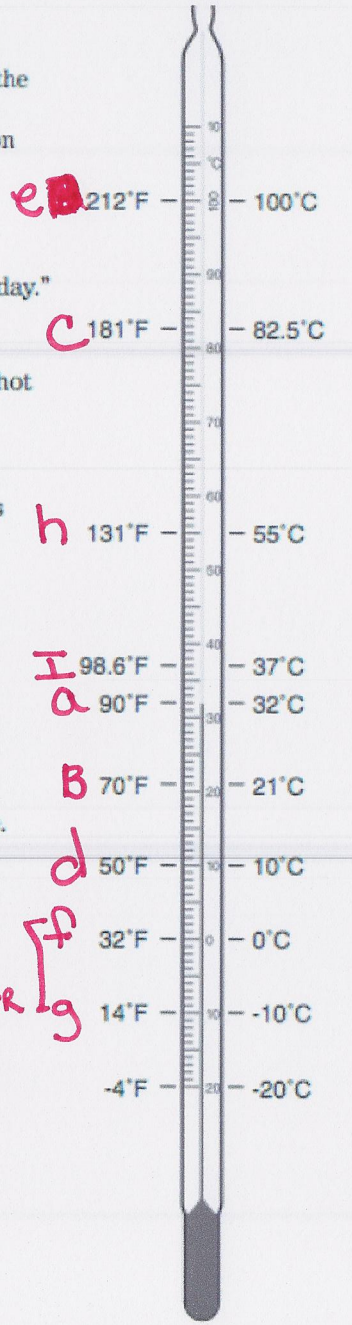
e) "Hey, the water on the stove is boiling."

f) Ice cream stays hard at this temperature.

g) "There are icicles on my nose!"

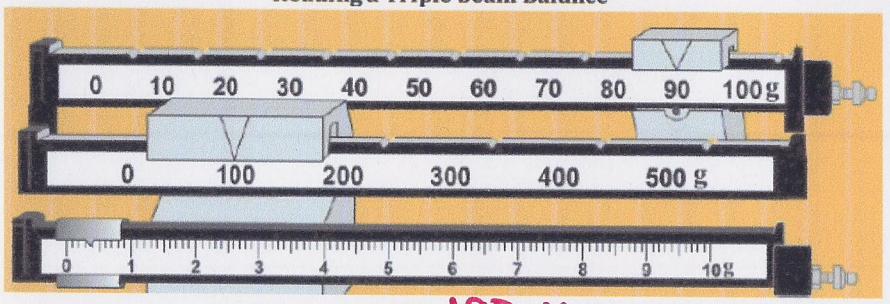
h) "Ouch – that water's hot!"

i) This is normal body temperature.



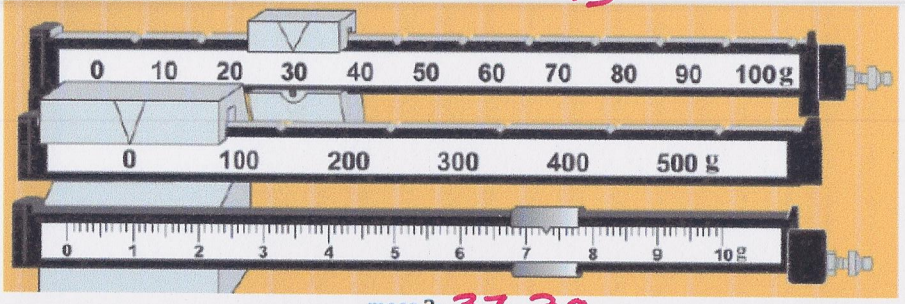
e B
c
h
I a
B
d
f or g
f
g

Reading a Triple beam Balance



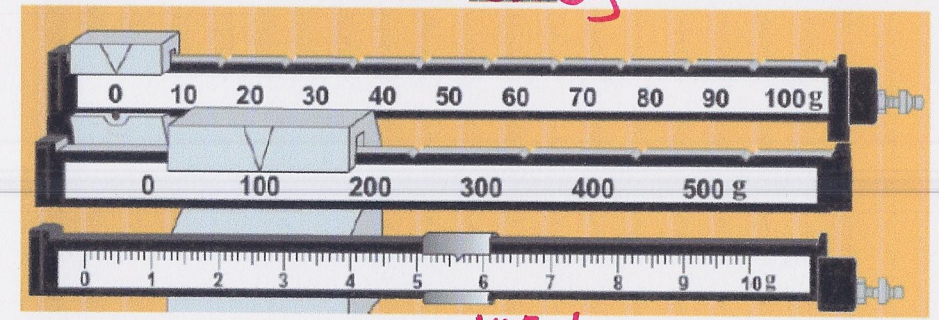
190.4g

mass 1: 190.4g



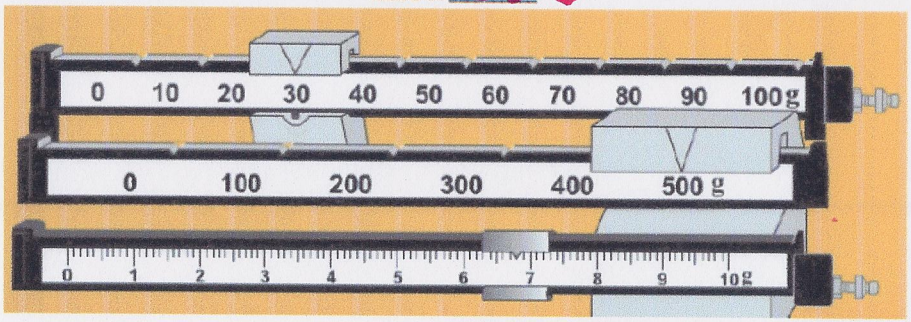
37.3g

mass 2: 37.3g



105.6g

mass 3: 105.6



536.8g

mass 4: 536.8g

Finding Temperature

Converting from Fahrenheit to Celsius

Name:

Convert the temperatures from Fahrenheit to Celsius.

Ex) 77 °F = 25° C

1) Subtract 32 from the temperature. 77° - 32 = 45°

2) Multiply the temperature by 5. 45° X 5 = 225°

3) Divide the temperature by 9. 225° ÷ 9 = 25°

Converting from Celsius to Fahrenheit

Name:

Convert the temperatures from Celsius to Fahrenheit.

Ex) 25 °C = 77° F

1) Multiply the temperature times 9. 25° X 9 = 225°

2) Divide the temperature by 5. 225° ÷ 5 = 45°

3) Add 32. 45° + 32 = 77°

1) 212 °F = _____ C

2) 176 °F = _____ C

3) 149 °F = _____ C

4) 104 °F = _____ C

5) 194 °F = _____ C

6) 77 °F = _____ C

1) 90 °C = _____ F

2) 60 °C = _____ F

3) 25 °C = _____ F

4) 75 °C = _____ F

5) 100 °C = _____ F

6) 30 °C = _____ F

F to C: (1st column)

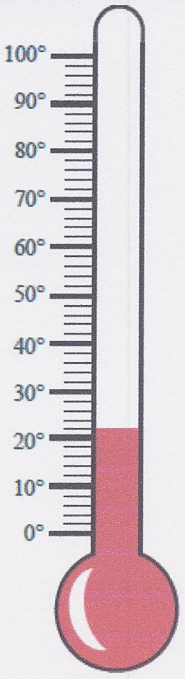
1) 212 - 32= _____ x 5 = _____ ./. 9 = 100° (answer)
2) 176 - 32= _____ x 5 = _____ ./. 9 = 80°
3) 149 - 32= _____ x 5 = _____ ./. 9 = 65°
4) 104 - 32= _____ x 5 = _____ ./. 9 = 40°
5) 194 - 32= _____ x 5 = _____ ./. 9 = 90°
6) 77 - 32= _____ x 5 = _____ ./. 9 = 25°

C to F: (2nd column)

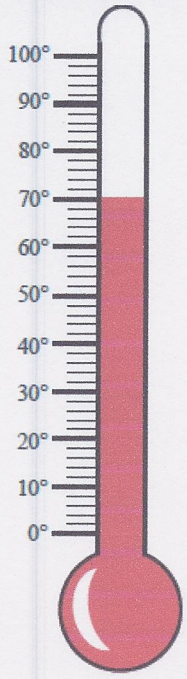
1) 90 x 9 = ____ ./. 5 = _____ + 32= 194°
2) 60 x 9 = ____ ./. 5 = _____ + 32= 140°
3) 25 x 9 = ____ ./. 5 = _____ + 32= 77°
4) 75 x 9 = ____ ./. 5 = _____ + 32= 167°
5) 100 x 9 = ____ ./. 5 = _____ + 32= 212°
6) 30 x 9 = ____ ./. 5 = _____ + 32= 86°

Find the temperature!

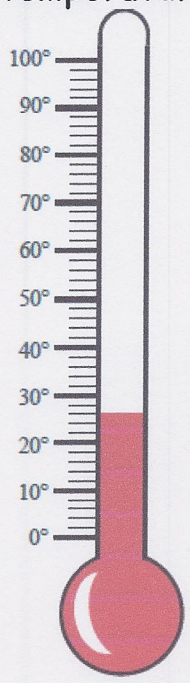
Determine the Fahrenheit temperature



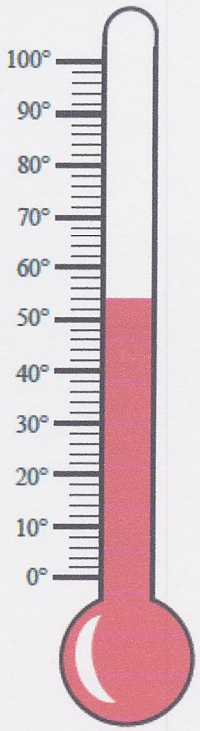
1. ___22°___



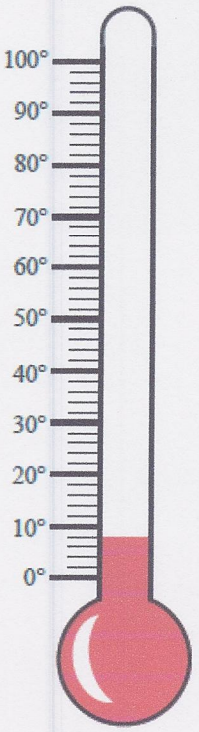
2. _70°__



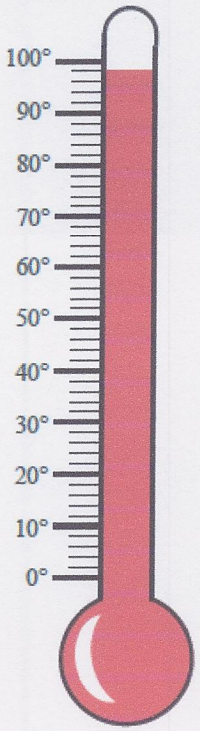
3.___26°_



4. 54°



5. 8°



6. 98°