Lab basics

You transfer a certain amount of water to containers. Draw a line for proper container size which can hold an amount of water.

1ul 5ul 10ul 50ul 100ul 200ul 500ul 1,000ul 2,000ul 5,000ul 20,000ul

Ep tube (1.5ml), 15ml Falcon tube, 50ml falcon tube

What will be the proper size of pipet tip for each of these amount of solutions?

1ul 5ul 10ul 50ul 100ul 200ul 500ul 1,000ul 2,000ul 5,000ul 20,000ul

Small white tip Yellow Tip Blue tip Glass pipette

Units for Volume

1000 ul = 1 ml

1000 ml = 1 l

1000,000 ul = 1000 ml = 1 l

Disposable pipet tips

White tip ; 0 to 10 µl

Yellow tip ; 5 to 200 µl

Blue tip ; 200 to 1000 µl

MV=M'V'

1- what mass of sodium bromide(molar mass=102.89g/mol) do you need to weigh out in order to mak 500mL of a 1.50M solution?

moles = (molarity)(volume in litres)
moles = (1.50M)(.500L) ---> 0.75 moles needed

now times 0.75 moles by 102.89g/mol and you get 77.17g needed

2- you have a stuck solution 2.00M solution of nitric acid and would like to make 100.0mL of 0.150M nitric acid. What volume of the stock solution should you use?

same idea...

you want moles --> (0.100L)(0.150) = 0.015 moles needed... now use the formula above re-arranged to solve for volume

formula: volume = moles/molarity

volume = 0.015moles/2.00M = 7.5mL

3. When 3% 100g salt solution is mixed with 6% 200g, what will be the final concentration?