In chemistry, you need to use your algebra skills to rearrange equations and solve for a variable. Solve for the "x" and show all your work. If your answer is a decimal, **round to 2 decimals places**.

1. $3x + 4 = 14$

2. $12 = 4/x$

3. $12 = x/4$

4. $28 - 6x + 12 = 45$

5. $25 = 3x/7$

6. $25 = 3/2x$

7. $25 - 2x = 13$

8. $32 + 5x + 12 = 80$

The density of an object is determined using the formula   Density = $\dfrac{\text{Mass (g)}}{\text{Volume (mL)}}$

1. If the mass of an object is 10g and the volume is 15mL. What would the density be? (the unit is g/mL)

Density = $\dfrac{\text{Mass (g)}}{\text{Volume (mL)}}$

2. How would you rearrange the equation to solve for Mass?

Mass = _____

      If the volume of an object is 30mL and the density is 3.0 g/mL, what is the mass of the object?

3. How would you rearrange the equation to solve for Volume?

Volume = _____

      If the mass of an object is 50g and the density is 2.0g/mL, what is the volume