

Chemistry 11  
Review Questions

The following questions require the use of math skills you should have acquired at this point. These skills will be used under the context of chemistry in this course. For each question, solve to find the values of x and y.

$$2. \text{ a) } 5 = \frac{4x}{3} \quad \frac{15}{4} = \frac{4x}{4} \quad x = \underline{3.75}$$

$$\text{b) } \frac{4}{3y-1} = 18 \quad 54y - 18 = 4 \\ 54y = 22 \\ y = \underline{0.407}$$

$$\text{c) } y - 3x - 4 = 0 \quad y = 3x + 4 \\ 2x - 3y + 7 = 0$$

$$2x - 3(3x + 4) + 7 = 0$$

$$2x - 9x - 12 + 7 = 0$$

$$-7x - 5 = 0$$

$$-7x = 5$$

$$x = \underline{-5/7}$$

$$y = 3(-5/7) + 4$$

$$y = -\frac{15}{7} + 4$$

$$y = \underline{13/7}$$

$$\text{d) } 37 = y \cdot y^2$$

$$\sqrt[3]{37} = \sqrt[3]{y^3}$$

$$\underline{3.33 = y}$$

$$\text{d) } 50 = x^3 \cdot \left(\frac{2}{3}x\right)^2$$

$$50 = x^3 \cdot \frac{4}{9}x^2$$

$$50 = \frac{4}{9}x^5$$

$$x = \underline{2.57}$$

$$\sqrt[5]{\frac{450}{4}} = \sqrt[5]{x^5}$$