Graphs in chemistry: diagnostic exercise

Education in Chemistry
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rsc.li/2ZzBziL

1. Rearrange the equation to make y the subject.

$$x = \frac{y - 1}{2}$$

2. Turn over this piece of paper and measure out a line 20 cm long.

   Along this line, make a scale which goes from 0 to 100.

   What value does 1 cm on the scale represent?

3. Rearrange the equation to make Q the subject.

$$\Delta T = \frac{Q}{mC}$$

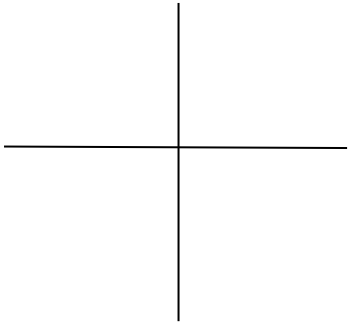
4. A rate equation is given below:

$$rate = 0.005 \times conc$$

   A graph is plotted with $conc$ on the x-axis and $rate$ on the y-axis.

   a) What is the gradient of the line?
   b) What is the y-intercept?

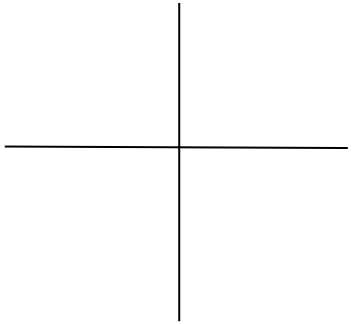
5. Sketch a graph of $y = 2x - 1$.



6. Determine the y values for the function $y = 3(x + 2)$.

x	***y***
0	
1	
2	
3	

7. Sketch a graph of $rate = 2 \times conc$ and label the axes.



8. Determine the $rate$ values for the function $rate = 1000 \times conc^2$.

conc	**rate**
0.01	
0.05	
0.10	
0.20	