Graphs in chemistry: diagnostic exercise

***Education in Chemistry***
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[**rsc.li/2ZzBziL**](https://rsc.li/2ZzBziL)

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| 1. Rearrange the equation to make $y$ the subject.

$$x=\frac{y-1}{2}$$ | 1. 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?
 | 1. Rearrange the equation to make $Q$ the subject.

$$ΔT=\frac{Q}{mC}$$ | 1. A rate equation is given below:

$$rate=0.005×conc$$A graph is plotted with $conc$ on the $x$-axis and $rate$ on the $y$-axis.1. What is the gradient of the line?
2. What is the $y$-intercept?
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| 1. Sketch a graph of $y=2x-1$.
 | 1. Determine the $y$ values for the function $y=3(x+2)$.

|  |  |
| --- | --- |
| ***x*** | ***y*** |
| 0 |  |
| 1 |  |
| 2 |  |
| 3 |  |

 | 7. Sketch a graph of $rate=2×conc$ and label the axes. | 1. Determine the $rate$ values for the function $rate=1000×conc^{2}$.

|  |  |
| --- | --- |
| **conc** | **rate** |
| 0.01 |  |
| 0.05 |  |
| 0.10 |  |
| 0.20 |  |

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