

Thinking about variables

Education in Chemistry

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rsc.li/35s2fSG

Use the equation to complete the variable tables below.

$$y = 2x$$

x	y
0	
1	
2	
3	
4	

$$y = x^2 - 4$$

x	y
0	
1	
2	
3	
4	

What is the equation for this one?

x	y
0	3
1	4
2	5
3	6
4	7

In science, the variables we are measuring in an experiment are also linked by an equation, we just don't always know what that equation is before doing the experiment.

The 'x' is the variable we change, and 'y' is the variable we measure.

Try to work out the equation linking the two variables in the equations below:

Pressure, P	Volume, V
1	12
2	6
3	4
4	3
6	2

Mass of magnesium (reactant), g	Mass of magnesium oxide (product), g
3	5
6	10
9	15
12	20
15	25

Concentration of acid, [HCl]	Rate of reaction
0	0
1	4
2	16
3	36
4	64

Equation linking P and V:

P =

Equation linking mass (reactant) with mass (product):

Equation linking [HCl] to rate:

rate =