

Lesson 4

GCSE Mathematics Graphworks

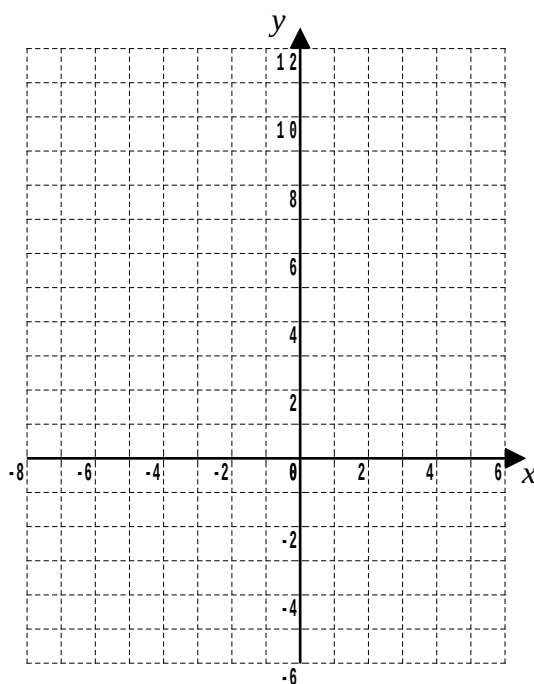
4.1 Plotting The Algebra #2

When asked to graph of a piece of algebra more complicated than a straight line a table is useful to work out sufficient points on the curve to then plot the curve.

Example

Complete the following table and then plot the curve $y = x^2 + 2x - 4$

x	-5	-4	-3	-2	-1	0	1	2	3
x^2									
$+ 2x$									
$- 4$									
y									



[10 marks]

Teaching Video: <http://www.NumberWonder.co.uk/9005/4.mp4>

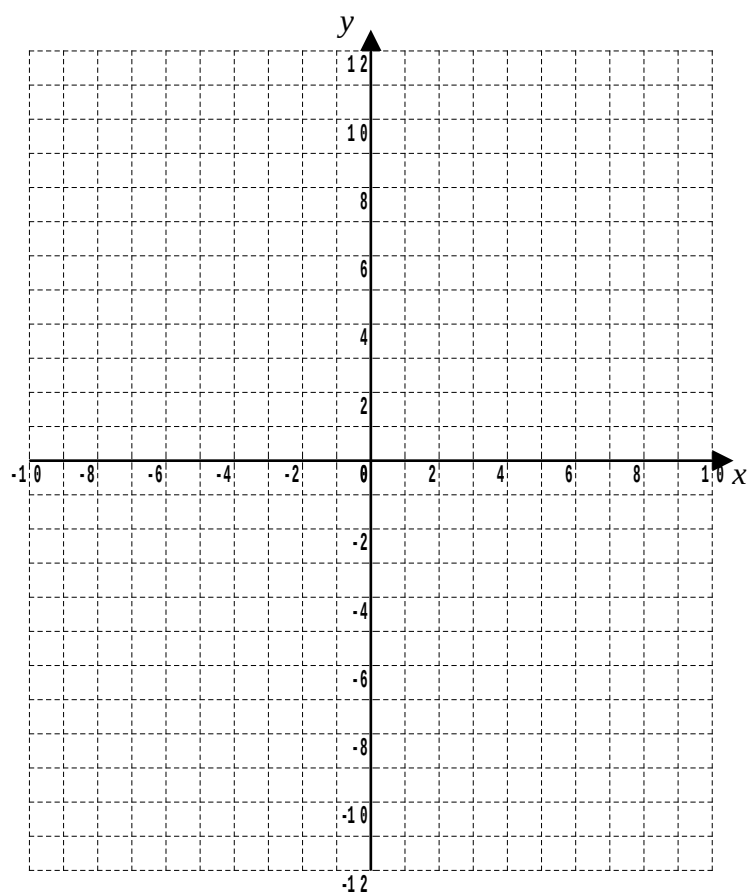


4.2 Exercise

Question 1

Complete the following table and then plot the curve $y = x^2 + 4x + 5$

x	-5	-4	-3	-2	-1	0	1
x^2							
$+ 4x$							
$+ 5$							
y							

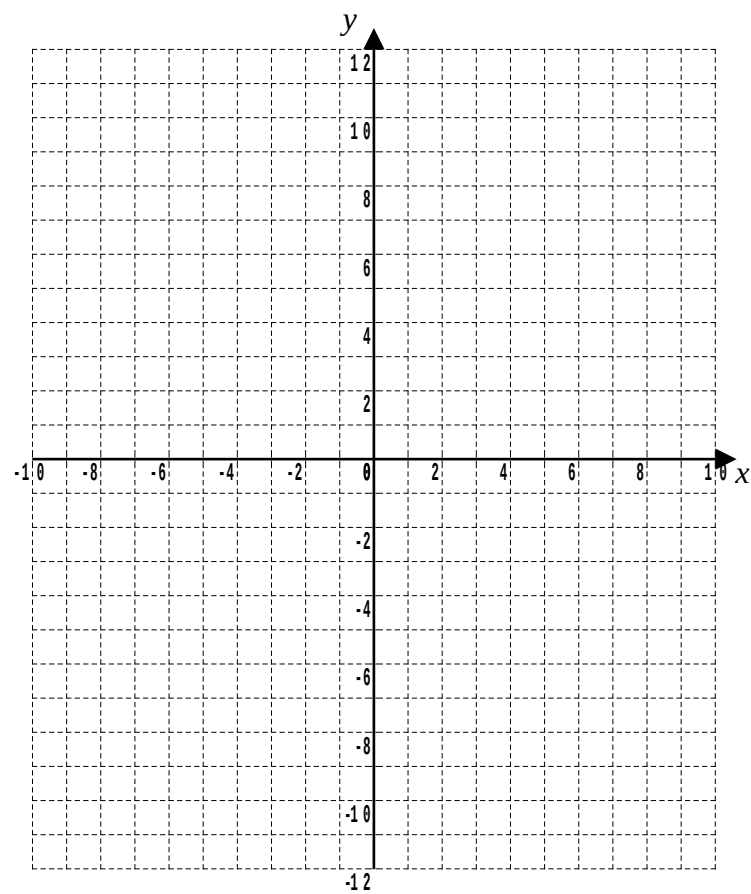


[10 marks]

Question 2

Complete the following table and then plot the curve $y = x^2 + 3x - 8$

x	-6	-5	-4	-3	-2	-1	0	1	2	3
x^2										
$+ 3x$										
$- 8$										
y										

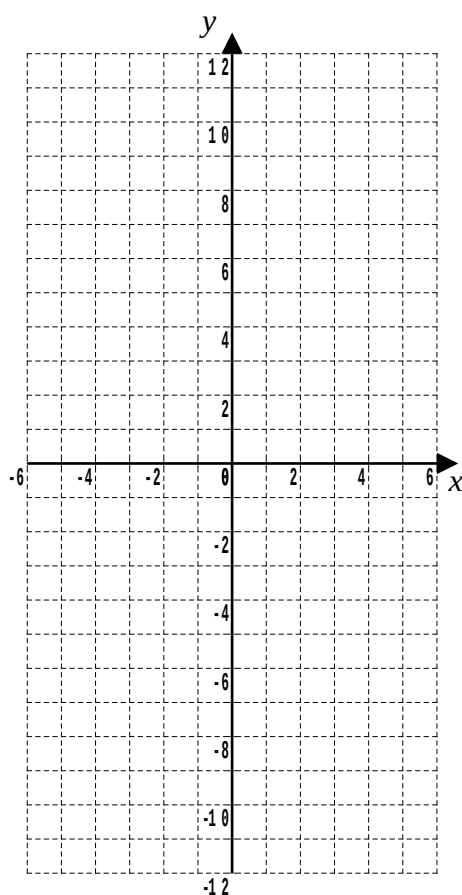


[10 marks]

Question 3

Complete the following table and then plot the curve $y = \frac{12}{x} - 2x + 1$

x	-6	-5	-4	-3	-2	-1		1	2	3	4	5	6
$\frac{12}{x}$													
$-2x$													
$+1$													
y													



[10 marks]

This document is a part of a **Mathematics Community Outreach Project** initiated by Shrewsbury School

It may be freely duplicated and distributed, unaltered, for non-profit educational use

In October 2020, Shrewsbury School was voted “**Independent School of the Year 2020**”

© 2025 Number Wonder

Teachers may obtain detailed worked solutions to the exercises by email from MHHShrewsbury@Gmail.com