

Types of Non-Linear Function

Section 1 – Quadratic functions

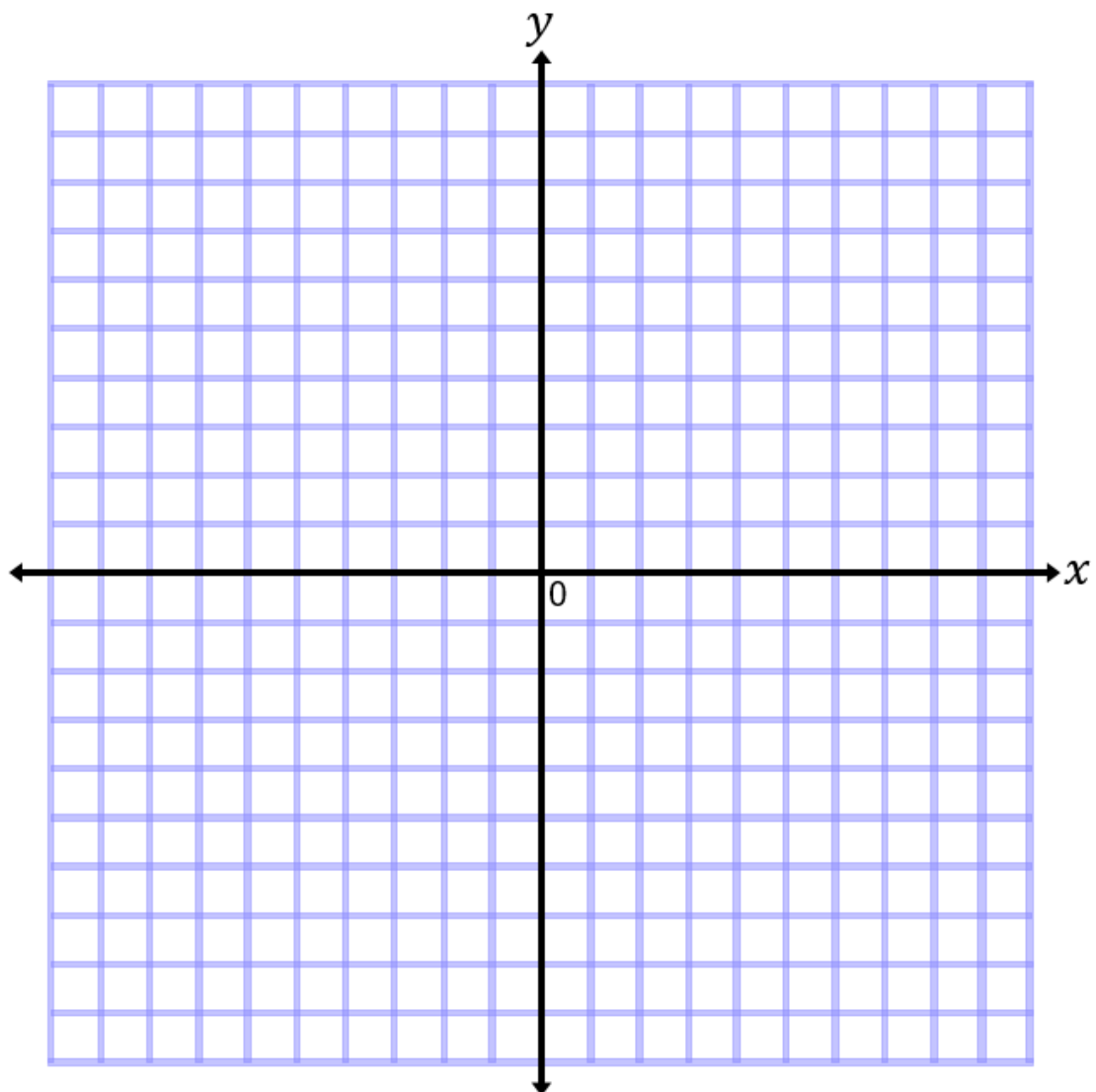
Use the tables and grid to plot the following functions:

$f(x) = x^2 - 9$									
x	-4	-3	-2	-1	0	1	2	3	4
y									

$g(x) = 4 - x^2$									
x	-4	-3	-2	-1	0	1	2	3	4
y									

$h(x) = x^2 - 4x - 5$									
x	-2	-1	0	1	2	3	4	5	6
y									

You will have to scale the grid appropriately.



Section 2 – Cubic functions

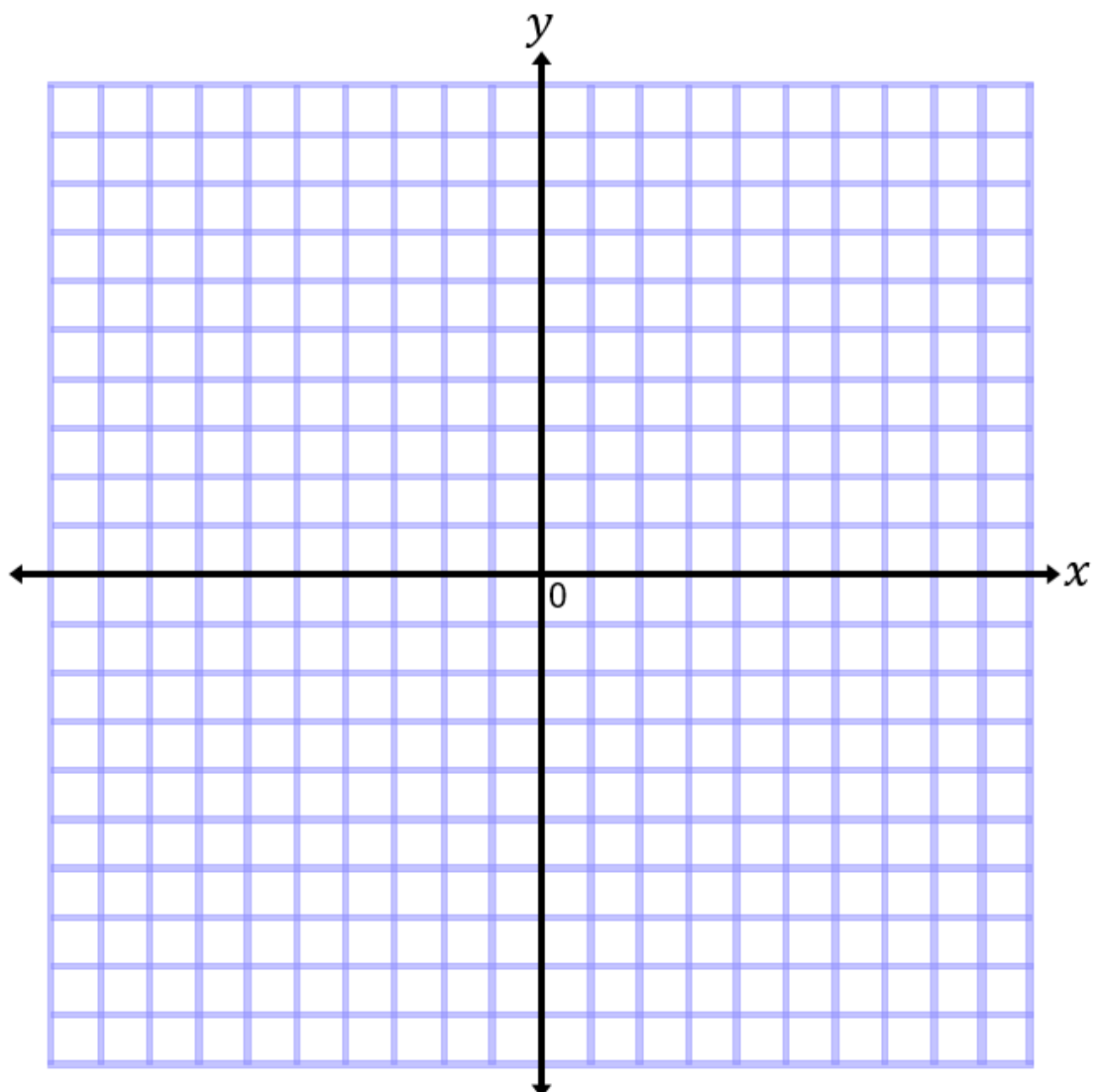
Use the tables and grid to plot the following functions:

$f(x) = x^3$							
x	-3	-2	-1	0	1	2	3
y							

$g(x) = 2 - x^3$							
x	-3	-2	-1	0	1	2	3
y							

$h(x) = x^3 - 3x - 1$							
x	-3	-2	-1	0	1	2	3
y							

You will have to scale the grid appropriately.



Section 3 – Reciprocal functions

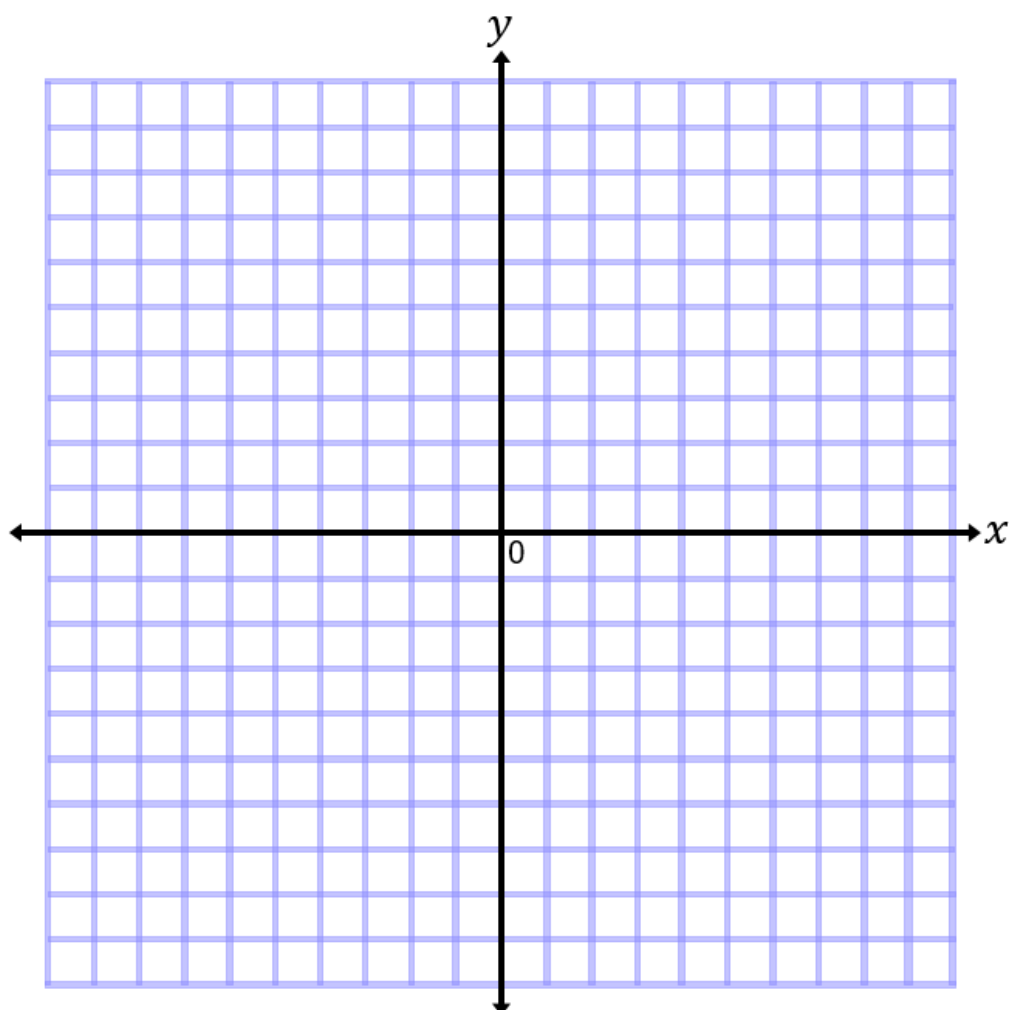
Use the tables and grid to plot the following functions:

$f(x) = \frac{1}{x}$									
x	-5	-2	-1	-0.5	0	0.5	1	2	5
y									

$g(x) = -\frac{4}{x}$									
x	-8	-2	-1	-0.5	0	0.5	1	2	8
y									

$h(x) = \frac{1}{x-2}$									
x	-2	0	1	1.5	2	2.5	3	4	6
y									

You will have to scale the grid appropriately.



Section 4 – Exponential functions

Use the tables and grid to plot the following functions:

$f(x) = 2^x$									
x	-4	-3	-2	-1	0	1	2	3	4
y									

$g(x) = 3^{-x}$									
x	-4	-3	-2	-1	0	1	2	3	4
y									

$h(x) = 2^x - 3$									
x	-4	-3	-2	-1	0	1	2	3	4
y									

You will have to scale the grid appropriately.

