

Introduction to Quadratic Functions

We will look at many different types of functions in this course. We will begin with quadratic functions, something you should be familiar with from grade 10.

Keeping in mind that functions could be defined, using an equation, graph or table of values, we will now list some characteristics of quadratic functions.

1) **Equations**

2) **Graphs**

3) **Table of Values**

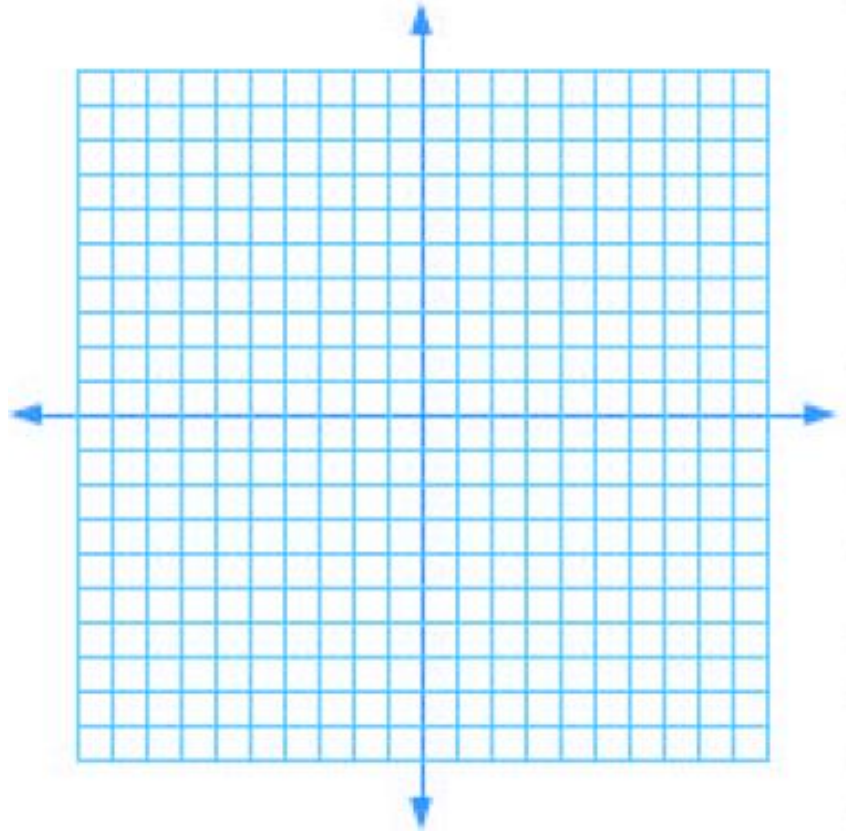
1. Graph each of the following by completing a table of values. Identify the vertex, zeroes, y-intercept, equation of axis and step pattern for each.

a) $f(x) = x^2$

x	f(x)
-3	
-2	
-1	
0	
1	
2	
3	

b) $g(x) = -2x^2 + 12x - 10$

x	f(x)
0	
1	
2	
3	
4	
5	
6	



	vertex	y-intercept	Zeroes	Equation of axis	"Step Pattern"
$f(x) = x^2$					
$g(x) = -2x^2 + 12x - 10$					

2. Examine each table of values. Does the table represent a quadratic function?

x	f(x)
-3	-8
-2	-5
-1	-2
0	1
1	4
2	7
3	10

x	f(x)
-3	17
-2	7
-1	1
0	-1
1	1
2	7
3	17

x	f(x)
-3	1
-2	-3
-1	1
0	0
1	5
2	6
3	11