1. Given $g(r) = -r^2 - 3r$

a) Find $g(5) = -(5)^2 - 3(5)$ b) Find $g(-2)$

$-25 - 15$ $-(-2)^2 - 3(-2)$

$= -40$ $-4 + 6 = \boxed{2}$

2. Does this relation represent a function?

(7,13),(-7,8),(4,3),(9,8),(2,3)

Yes

3. State the domain and range of the relation from Prob. 2

Domain: Range:

$-7, 2, 4, 7, 9$ $3, 8, 13$

4. Graph this function: $f(x) = 3|x| - 4$ V-shape

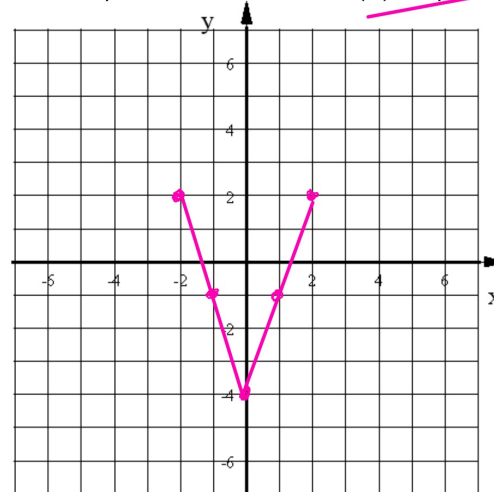| x	y	
-2	2	$3(2) - 4 = 2$
-1	-1	$3(1) - 4 = -1$
0	-4	
1	-1	
2	2	

An equation with x inside | | symbols
is called an Absolute Value Equation.

The graph is called
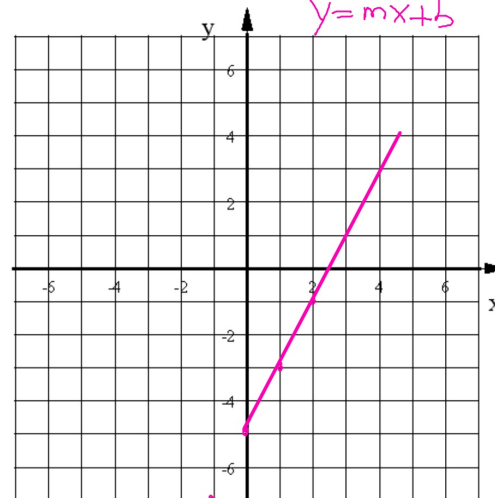a V-shape.

5. Graph this function: $y = 2x - 5$

$y = mx + b$

X	Y
-2	-9
-1	-7
0	-5
1	-3
2	-1
3	1
4	3

An equation with only x (no exponent)
is called a Linear Equation.

The graph is called a
Line

6. Graph this function: $y = 2x^2 - 3$
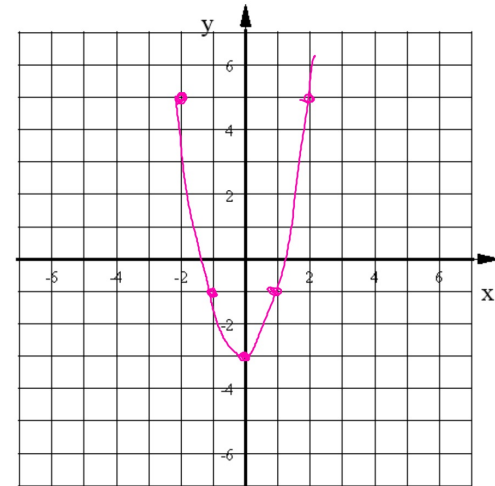
X	Y
-2	5
-1	-1
0	-3
1	-1
2	5

An equation with x^2 as the largest exponent
is called a Quadratic Equation

The graph is called a
Parabola