Practice

1. $y = x^2 - 2x - 3$

A = 1 B = -2 C = -3

Axis of symmetry?

$x = \frac{-(-2)}{2(1)} = 1$

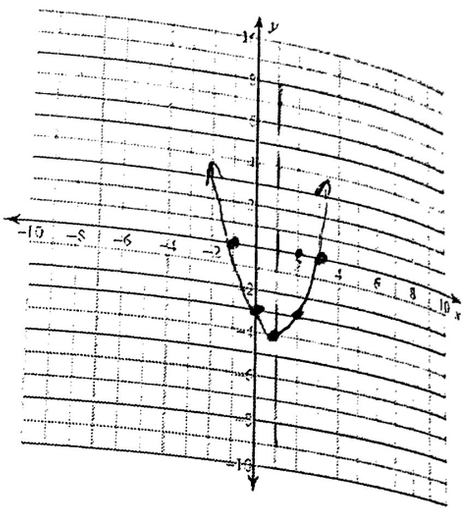
x	y
-1	0
0	-3
1	-4
2	-3
3	0

Y-Intercept? 0, -3

X-Intercepts? (-1, 0), (3, 0)

Up or Down?

Maximum or Minimum?



2. $y = -2x^2 + 12x - 18$

A = -2 B = 12 C = -18

Axis of symmetry?

$x = \frac{-12}{2(-2)} = 3$

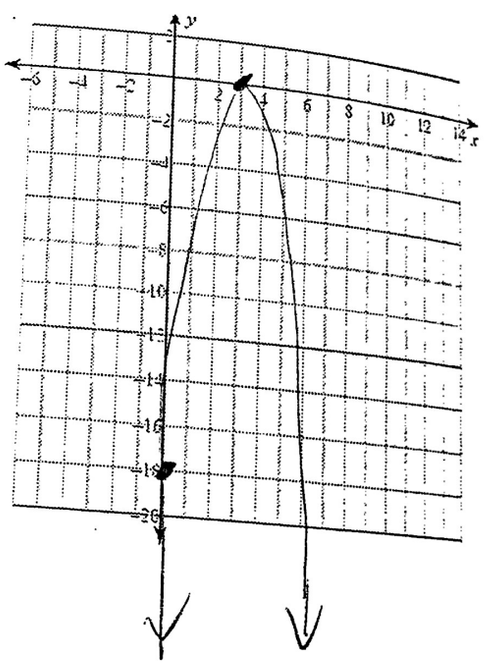
x	y
1	-8
2	-2
3	0
4	-2
5	-8

Y-Intercept? (0, -18)

X-Intercepts? (3, 0)

Up or Down?

Maximum or Minimum?



3. $y = -x^2 + 6x - 5$

A = -1 B = 6 C = -5

Axis of symmetry?

$x = \frac{-6}{2(-1)} = 3$

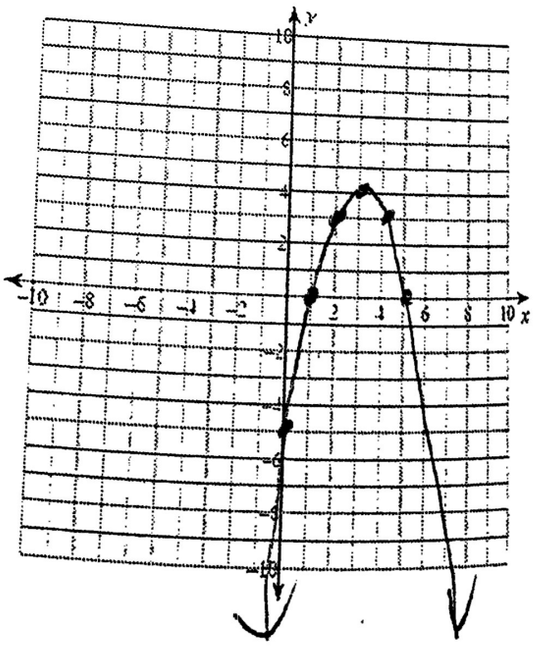
x	y
1	0
2	3
3	4
4	3
5	0

Y-Intercept? (0, -5)

X-Intercepts? (1, 0) (5, 0)

Up or Down?

Maximum or Minimum?



4. $y = 2x^2 - 8$

A = 2 B = 0 C = -8

Axis of symmetry?

$x = \frac{0}{2(2)} = 0$

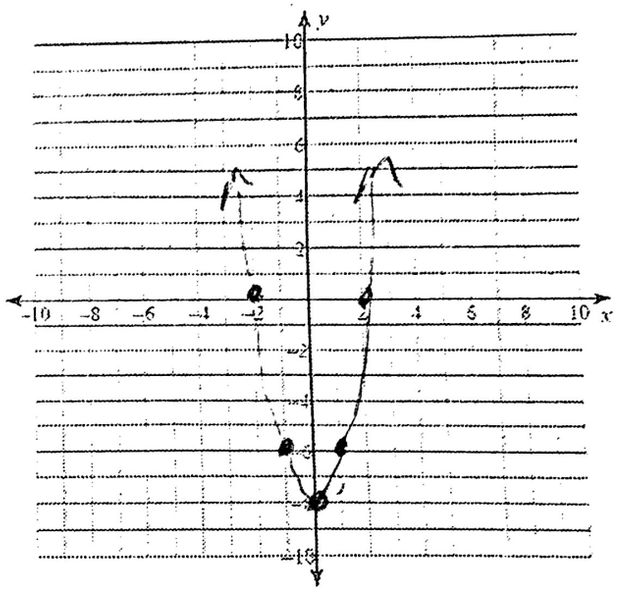
Y-Intercept? 0, -8

X-Intercepts? (-2, 0), (2, 0)

Up or Down?

Maximum or Minimum?

x	y
-2	0
-1	-6
0	-8
1	-6
2	0



5. $y = 3x^2 + 12x + 9$

A = 3 B = 12 C = 9

Axis of symmetry?

$x = \frac{-12}{2(3)} = -2$

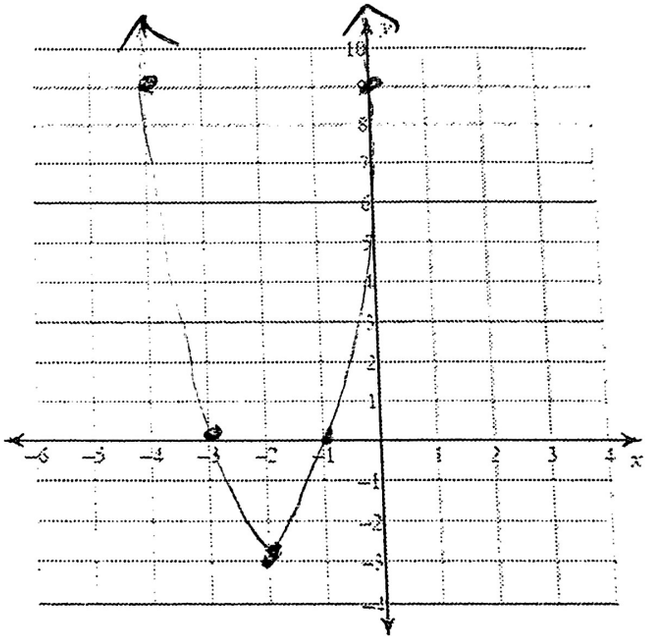
Y-Intercept? (0, 9)

X-Intercepts?

Up or Down?

Maximum or Minimum?

x	y
-4	9
-3	0
-2	-3
-1	0
0	9



6. $y = 5x^2 - 40x + 75$

A = 5 B = -40 C = 75

Axis of symmetry?

$x = \frac{-(-40)}{2(5)} = 4$

Y-Intercept? (0, 75)

X-Intercepts?

Up or Down?

Maximum or Minimum?

x	y
2	15
3	0
4	-5
5	0
6	15