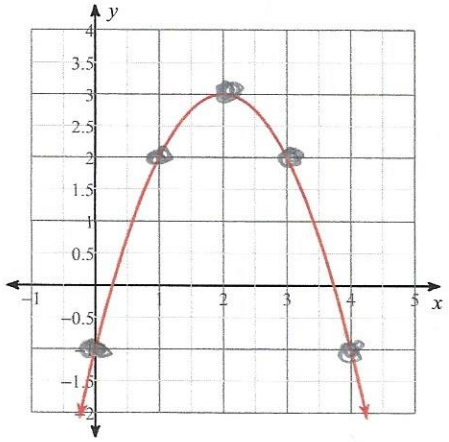
Algebra 1 Name _____ ID: 1

Solving Quadratics

Date _____ Period ____

Make a Table and Graph, Give the Solutions, the Max or Min Point, the "a" Value

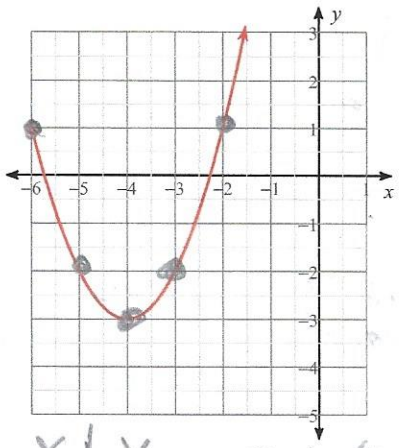
1) $y = -x^2 + 4x - 1$



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

Solutions
x = .268
x = 3.73
max (2,3)
a = -1

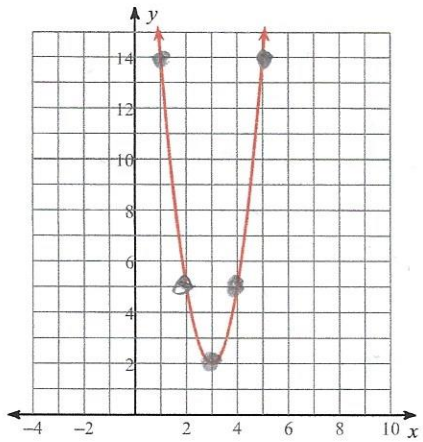
2) $y = x^2 + 8x + 13$



x	y
-6	1
-5	-2
-4	-3
-3	-2
-2	1

Solutions
x = -2.27
x = -5.73
min (-4, -3)
a = 1

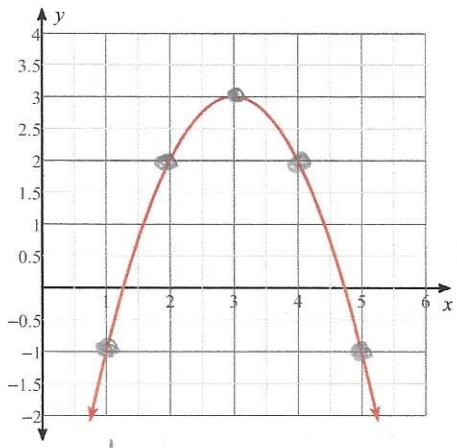
3) $y = 3x^2 - 18x + 29$



x	y
1	14
2	5
3	2
4	5
5	14

No Solutions
min (3,2)
a = 3

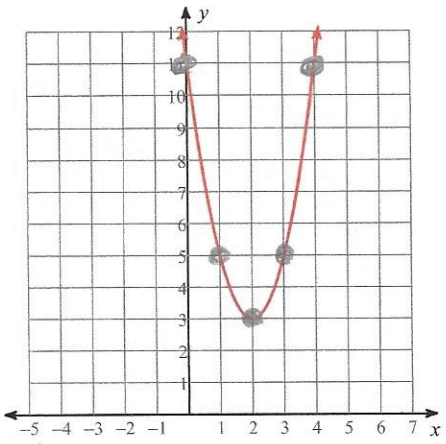
4) $y = -x^2 + 6x - 6$



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

Solutions
x = 1.27
x = 4.73
max (3,3)
a = -1

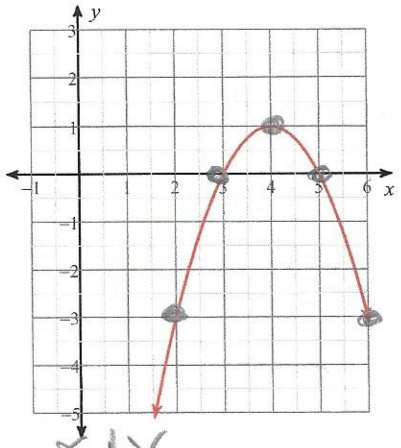
5) $y = 2x^2 - 8x + 11$



x	y
0	11
1	5
2	3
3	5
4	11

No Solutions
min (2, 3)
$a = 2$

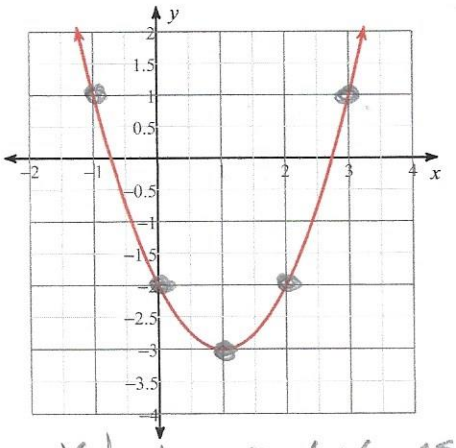
6) $y = -x^2 + 8x - 15$



x	y
2	-3
3	0
4	1
5	0
6	-3

Solutions
$x = 3$
$x = 5$
max (4, 1)
$a = -1$

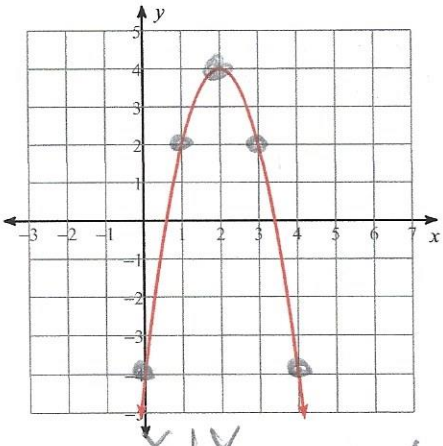
7) $y = x^2 - 2x - 2$



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

Solutions
$x = -.732$
$x = 2.73$
min (1, -3)
$a = 1$

8) $y = -2x^2 + 8x - 4$



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

Solutions
$x = .586$
$x = 3.41$
max (2, 4)
$a = -2$

Solve each equation by taking square roots.

9) $81v^2 + 3 = 67$

{0.889, –0.889}

$81v^2 + 3 = 67$
$-3 \quad -3$
$81v^2 = 64$
$\sqrt{81v^2} = \sqrt{64}$
$9v = \pm 8$
$v = \pm \frac{8}{9}$

$v = \frac{8}{9}$
$v = -\frac{8}{9}$

10) $100n^2 - 9 = 55$

{0.8, –0.8}

$100n^2 - 9 = 55$
$+9 \quad +9$
$100n^2 = 64$
$\sqrt{100n^2} = \sqrt{64}$
$10n = \pm 8$
$n = \pm \frac{8}{10} = \pm \frac{4}{5}$

$n = \frac{4}{5}$
$n = \frac{-4}{5}$