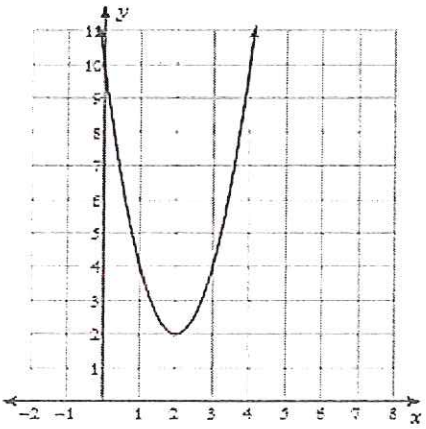
Alg 1 Review for Mid-Chapter Test

Name Key Period _____ Date _____

1 1) $y = 2x^2 - 8x + 10$



1 a= 2 b= -8 c= 10

Vertex (2, 2)

Axis of Symmetry $x = 2$

X-Intercepts NONE

(Zeros)

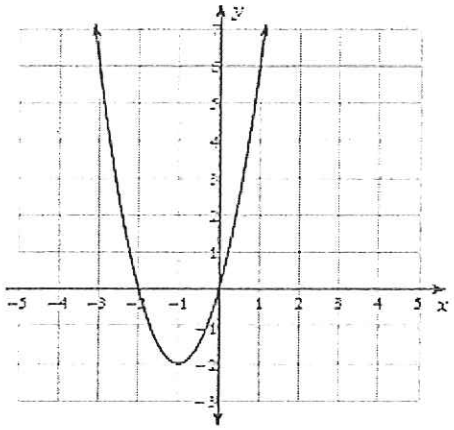
Y-Intercept 10

Domain $\mathbb{R}$

Range $y \geq 2$

(Min) or Max $y = 2$

2 $y = 2x^2 + 4x$



2 a= 2 b= 4 c= 0

Vertex (-1, -2)

Axis of Symmetry $x = -1$

X-Intercepts -2 and 0

(Zeros)

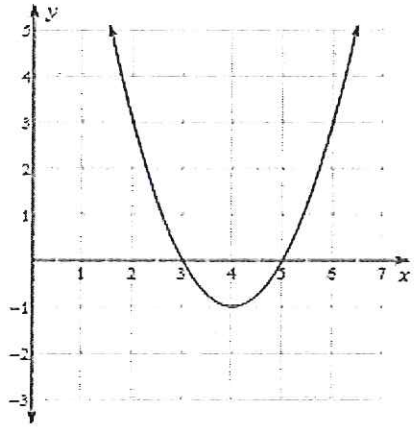
Y-Intercept 0

Domain $\mathbb{R}$

Range $y \geq -2$

(Min) or Max $y = -2$

3 $y = x^2 - 8x + 15$



3 a= 1 b= -8 c= 15

Vertex (4, -1)

Axis of Symmetry $x = 4$

X-Intercepts 3 and 5

(Zeros)

Y-Intercept 15

Domain $\mathbb{R}$

Range $y \geq -1$

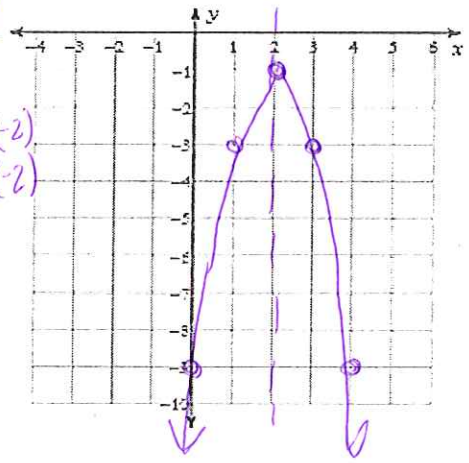
(Min) or Max $y = -1$

4

$y = -2x^2 + 8x - 9$

$x = \frac{-8}{2(-2)} = 2$

over 1 up 1 (-2)
over 2 up 4 (-2)



4 a= -2 b= 8 c= -9

Vertex (2, -1)

Axis of Symmetry $x = 2$

X-Intercepts NONE
(Zeros)

Y-Intercept -9

Domain $\mathbb{R}$

Range $y \leq -1$

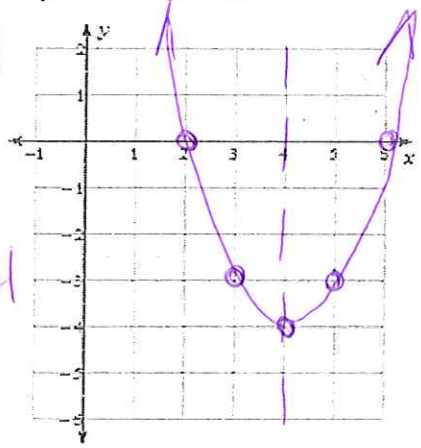
Min or Max $y = -1$

5

$y = x^2 - 8x + 12$

$x = \frac{8}{2(1)} = 4$

over 1 up 1
over 2 up 4



5 a= 1 b= -8 c= 12

Vertex (4, -4)

Axis of Symmetry $x = 4$

X-Intercepts 2 and 6
(Zeros)

Y-Intercept 12

Domain $\mathbb{R}$

Range $y \geq -4$

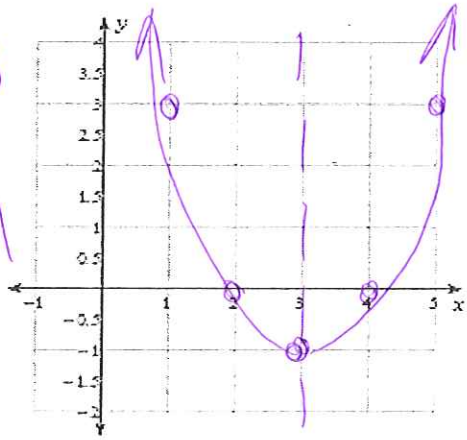
Min or Max $y = -4$

6

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

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

over 1 up 1
over 2 up 4



6 a= 1 b= -6 c= 8

Vertex (3, -1)

Axis of Symmetry $x = 3$

X-Intercepts 2 and 4
(Zeros)

Y-Intercept 8

Domain $\mathbb{R}$

Range $y \geq -1$

Min or Max $y = -1$

Also be able to answer the questions below.

1. List 3 differences between Linear functions and Quadratic functions (look in your notes)

2. How can you tell if an equation will be graphed as a line or as a parabola?