FinalREVIEWp4-5

Answers to Quadratics

1.

a. linear b. quadratic c. quadratic d. neither

2.

	a.	b.	c.	d.
Max or Min ?	min	max	max	min
Optimal Value	y = -4	y = 16	y = 0	y = -8
Axis of symm	x = -1	x = -2	x = -1	x = 0
Vertex	(-1, -4)	(-2, 16)	(-1, 0)	(0, -8)
Zeros/x-int	-3 and 1	-6 and 2	same as vertex (-1, 0)	-2 and 2
Y-intercept	(0, -3)	(0, 12)	(0, -1)	(0, -8) same as vertex

3.

a. standard, b. vertex c. standard d. factored

e. factored f. standard g. vertex h. standard AND vertex form

4.

a. factored form

b. vertex form

c.

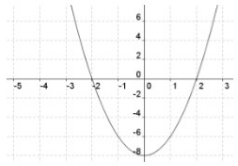
$-0.2(x+1)(x-9)$

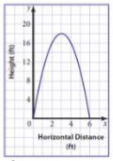
zeros (-1,0)(9,0)

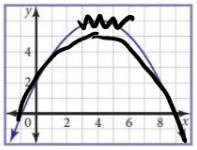
x	y
2	0
0	-8
-2	0

x	y
4	16
3	18
2	16

x	y=
9	0
	5
-1	0







5.

a. min height = -8 meters

b. 4 meters wide

6.

a. max height = 18feet

b.

$0 = -2(x-3)^2 + 18$

$-18 = -2(x-3)^2$

$9 = (x-3)^2$

$\pm 3 = x - 3$

$+3+3 = x \text{ or } -3+3 = x$

$6 = x \text{ or } 0 = x$

$\therefore$ 6 feet wide

7.

a. max profit = 5 thousand dollars

b. sell 4 thousand ice-creams

c. 9 thousand ice-creams