

P.S. #11.4 Answers

1.)

Parabola #1	a	b	c	Symmetry	Vertex	Min/Max?	Y-Intercept	Roots
$a(x) = 4x^2 + 8x$	4	8	0	$x = -1$	$(-1, -4)$	Min	$(0, 0)$	$\{0, -2\}$

2.)

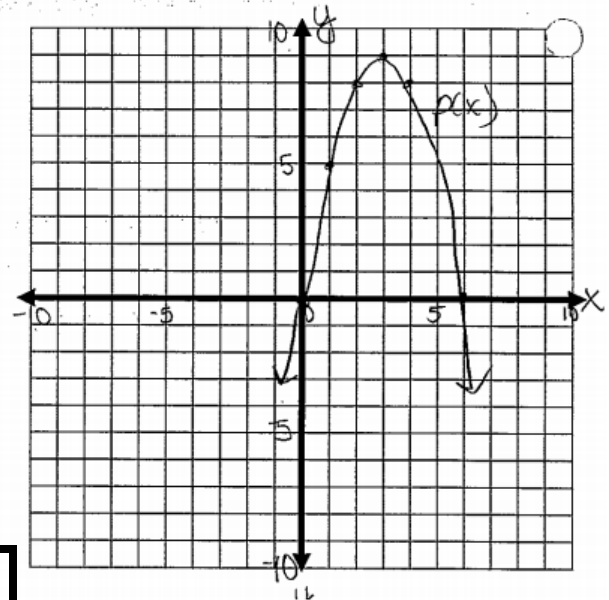
Parabola #2	a	b	c	Symmetry	Vertex	Min/Max?	Y-Intercept	Roots
$d(x) = -2x^2 + x + 6$	-2	1	6	$x = \frac{1}{4}$	$(\frac{1}{4}, \frac{49}{8})$	Max	$(0, 6)$	$\{-\frac{3}{2}, 2\}$

3.)

Parabola #3	a	b	c	Symmetry	Vertex	Min/Max?	Y-Intercept	Roots
$f(x) = x^2 + 8x - 12$	1	8	-12	$x = -4$	$(-4, -28)$	Min	$(0, -12)$	$\{-9.29, 1.29\}$

4.)

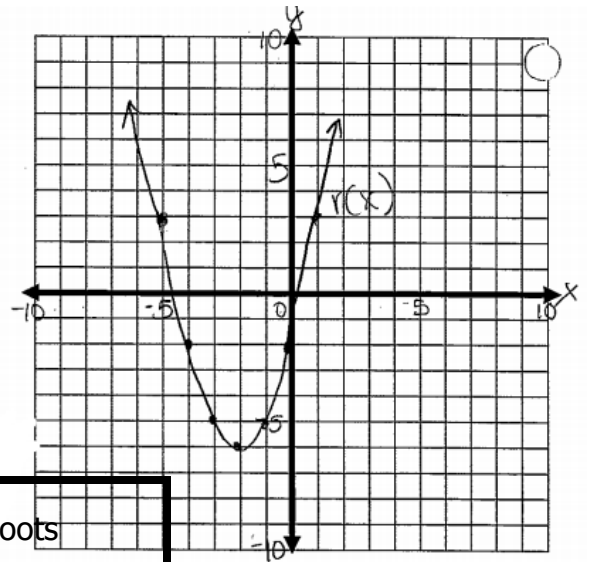
x	y
0	0
1	5
2	8
3	9
4	8
5	5
6	0



Symmetry	Vertex	Min/Max?	Y-Intercept	Roots
$x = 3$	$(3, 9)$	Max	$(0, 0)$	$\{0, 6\}$

5.)

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



Symmetry	Vertex	Min/Max?	Y-Intercept	Roots
$x = -2$	$(-2, -6)$	Min	$(0, -2)$	$\{-2 + \sqrt{6}, -2 - \sqrt{6}\}$

6.) b.) quadratic

c.) $y = -16x^2 + 1821$

d.) 57 ft

7.) D

8.) $(-6, -5)$