Algebra 1

Name **KEY**

ID: 1

Practice 10.1 to 10.3 Quiz
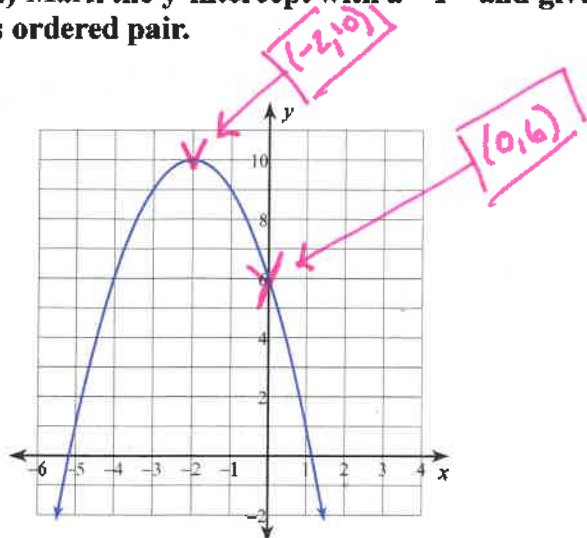
Date_____ Period_____

FUNC.e.1
For each quadratic function -
(1) Mark the vertex with a "V" and give its ordered pair; and
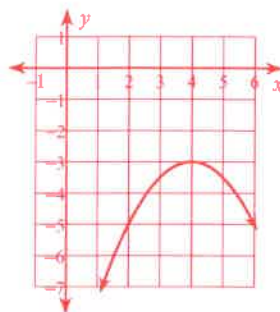**(2) Mark the y-intercept with a "Y" and give its ordered pair.**

1)

(-2, 10)

(0, 6)

FUNC.e.2
For each quadratic function,
(1) determine the direction of the parabola and explain;
(2) identify the y-intercept and explain.

2) $f(x) = -\dfrac{1}{2}x^2 + 4x - 11$

$A = -\dfrac{1}{2} \quad B = 4 \quad C = -11$

Shape: opens down — because $A = -1/2$

$y_{INT}\ (0, -11)$ b/c $C = -11$

FUNC.e.3
Graph each quadratic function in standard form and identify the y-intercept, axis of symmetry, and vertex.
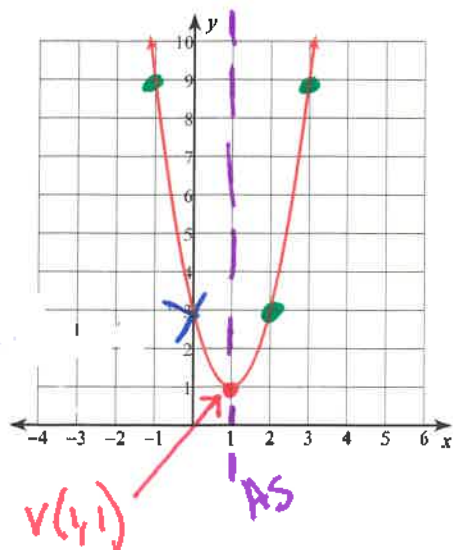**For each quadratic function -**
(1) Clearly graph at least 5 points and provide the supporting table of values.
(2) Mark the y-intercept with a "Y" and give its ordered pair.
(3) Mark the axis of symmetry with a "AS" and give the appropriate equation.
(4) Mark the vertex with a "V" and give its ordered pair.

3) $f(x) = 2x^2 - 4x + 3$

$V(1, 1)$ AS

$A = 2 \quad B = -4 \quad C = 3$

$y_{INT}\ (0, 3)$

AS: $x = \dfrac{4}{2(2)} = \dfrac{4}{4}$ $x = 1$

| X	-1	0	1	2	3
Y	9	3	1	3	9

FUNC.e.4

Solve each quadratic function by graphing:

(1) Clearly graph at least 5 points and provide the supporting table of values.

(2) Give the ordered pair for the y-intercept: "Y-int (_,_)" If possible, mark graph with a "Y".

(3) Mark the axis of symmetry with a "AS" and give the appropriate equation.

(4) Mark the vertex with a "V" and give its ordered pair.

(5) Mark the x-intercepts with a "X".

(6) Solve the quadratic fuction and label solutions "Roots are x=...".

4) $f(x) = x^2 + 8x + 15$

$A = 1 \qquad B = 8 \qquad C = 15$

$Y_{INT}(0, 15)$
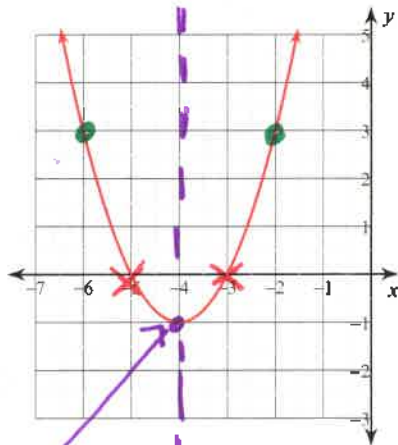
$AS \quad X = \dfrac{-8}{2(1)} = \dfrac{-8}{2} \qquad \boxed{X = -4}$

V

X	-2	-3	-4	-5	-6
Y	3	0	-1	0	3

ROOTS
$X = -3, -5$

$V(-4, -1)$

AS