Algebra 1 Name KEY ID: 1

10.1 Practice A

Date _____

#1

Graph the quadratic function in standard form and identify the y-intercept, axis of symmetry, and vertex.

(a) Identify A, B, and C.

A = 2 B = 0 (AS x=0) C = −4 (yINT)

(b) Create a table with 5 points. Use the Domain -2,-1, 0, 1, 2. Mark the vertex on the table.

x	-2	-1	0 (V)	1	2
y	4	-2	-4	-2	4

(c) What is the shape of the QF? Explain.

OPENS UP b/c A = +2

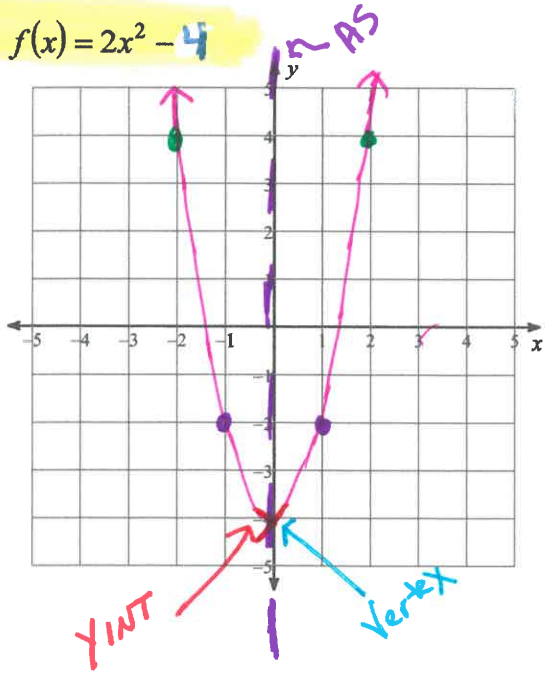
(d) Give the ordered pair for the y-intercept: (0, -4) . Mark on the graph with "Y"

(e) What is the equation of the axis of symmetry? Mark it "AS" on the graph.

AS → x = 0

(f) Give the ordered pair for the vertex → (0, -4) . Mark it "V" on the graph.

1) $f(x) = 2x^2 - 4$



Algebra 1 Name _____ ID: 1

10.2 Practice A

Date _____

FUNC.e.3

Graph the quadratic function in standard form and identify the y-intercept, axis of symmetry, and vertex.

(a) Clearly graph at least 5 points and provide the supporting table of values in the space provided below. Mark the vertex on the table.

(b) Give the ordered pair for the y-intercept: (0, -3). If possible, mark it on the graph with a "Y".

(c) Calculate the axis of symmetry and give the appropriate equation. Mark it "AS" on the graph.

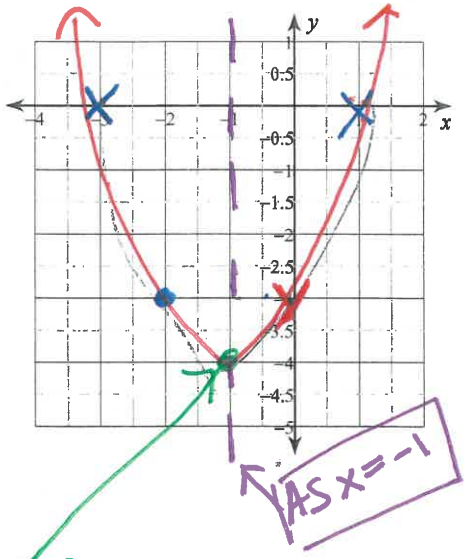
AS $x = \frac{-B}{2A} = \frac{-2}{2(1)} = \frac{-2}{2} = -1$ $x = -1$

$y = (-1)^2 + 2(-1) - 3 = 1 - 2 - 3 = -4$

(d) Give the ordered pair for the vertex (-1, -4). Mark it "V" on the graph.

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

A = 1 B = 2 C = -3 ↑ yINT



x	y
-3	0 ✓
-2	-3
V -1	-4
0	-3
1	0

Match

q-6-3

1+2-3

Solution x = -3, 1

(cont.) Graph the quadratic function in standard form and identify the y-intercept, axis of symmetry, and vertex.

(a) Clearly graph at least 5 points and provide the supporting table of values in the space provided below. Mark the vertex on the table.

(b) Give the ordered pair for the y-intercept: (0, -4). If possible, mark it on the graph with a "Y".

(c) Calculate the axis of symmetry and give the appropriate equation. Mark it "AS" on the graph.

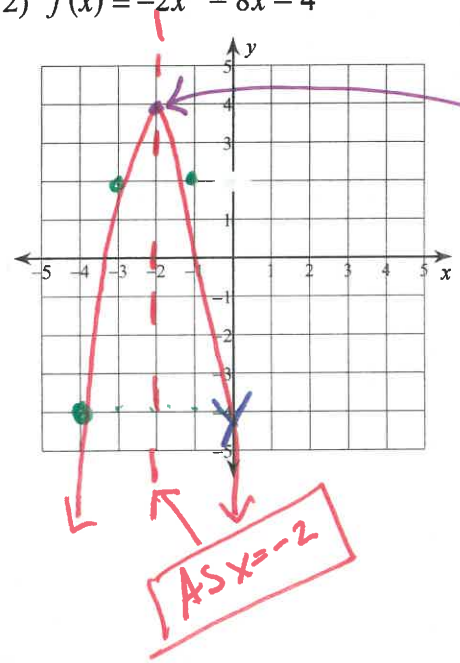
AS → $x = \frac{8}{2(-2)} = \frac{8}{-4}$ $x = -2$

$y = -2(-2)^2 - 8(-2) - 4 = -8 + 16 - 4 = 4$

(d) Give the ordered pair for the vertex (-2, 4). Mark it "V" on the graph.

2) $f(x) = -2x^2 - 8x - 4$

A = -2 B = -8 C = -4 ↑ yint



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

V