Algebra 1 Name KEY ID: 1

FUNC.e Date _____ Period ____

FUNC.e.1

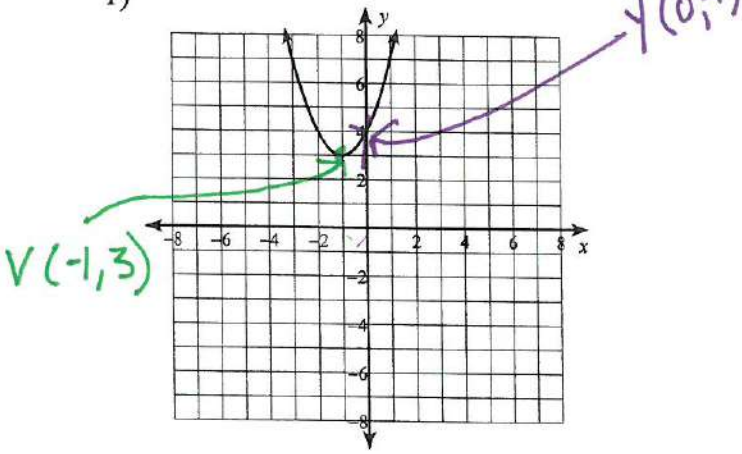
For each quadratic function -

(a) Clearly label features in the white space outside of the graph.

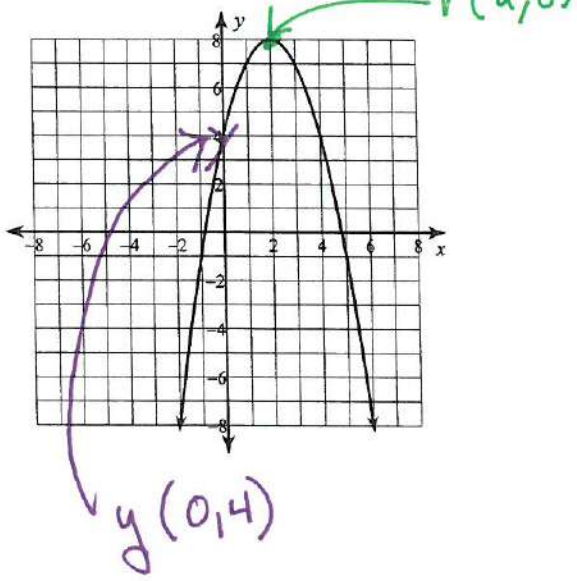
(b) Use an arrow to mark the vertex with a "V" and give its ordered pair; and (green)

(c) Use an arrow to mark the y-intercept with a "Y" and give its ordered pair. (purple)

1)



2)



Algebra 1 Name KEY ID: 1

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FFUNC.e.2

For each quadratic function, clearly answer the following questions:
(a) Identify the coefficients of the quadratic function. Label "A, B, C" (red)
(b) Determine the direction of the parabola and explain. Label "SHAPE:" (purple)
(c) Identify the ordered pair for the y-intercept and explain. Label "Y-INT:" (green)

1) $f(x) = x^2 + 4x + 8$ (A, B, C)

a) A = 1 B = 4 C = 8

b) SHAPE: opens up because A is positive (A=1)

c) YINT: (0, 8) because C = 8

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FUNC.e.3
Graph the quadratic function in standard form and identify the y-intercept, axis of symmetry, and vertex.

For the following function:

(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: (0,5). If possible, mark it on the graph with a "Y".

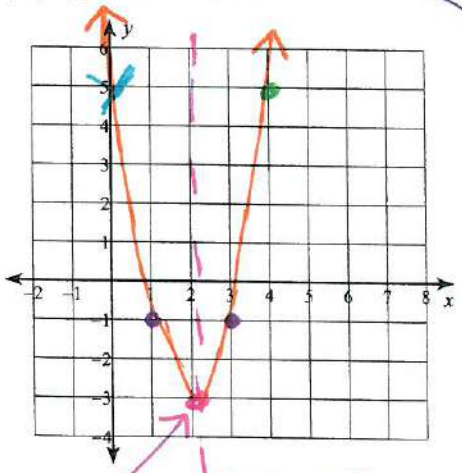
(c) Calculate the axis of symmetry and give the appropriate equation. Mark it "AS" on the graph.

SHOW WORK HERE:

AS: $x = \frac{-B}{2A} = \frac{8}{2(2)} = \frac{8}{4} = 2$ $\boxed{x=2}$

(d) Give the ordered pair for the vertex (2,-3). Mark it "V" on the graph.

1) $f(x) = 2x^2 - 8x + 5$



A = 2 B = -8 C = 5 ↑ yINT (0,5)

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

mental work

$y = 2(2)^2 - 8(2) + 5 = -3$

Algebra 1 Name KEY ID: 1

FUNC.e Date Period

FUNC.e.4
Solve the quadratic function by graphing.

For the following function:

(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.

SHOW WORK HERE:

AS: $x = \frac{-B}{2A} = \frac{-4}{2(-1)} = \frac{-4}{-2}$ $\boxed{x = 2}$

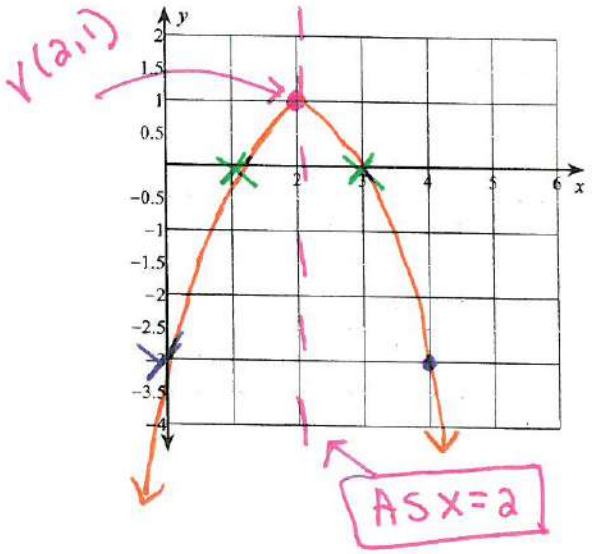
(d) Give the ordered pair for the vertex (2, 1). Mark it "V" on the graph.

(e) Give the ordered pair(s) for the x-intercept(s) (1, 0); (3, 0).
Mark them with X's on the graph.

(f) Solve the quadratic function. The solutions are x= 1, 3.

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

A = -1 B = 4 C = -3 ↑ yINT



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