Name _____ **2022 KEY** _____

10.3 Practice A

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".

b|c $C=3$

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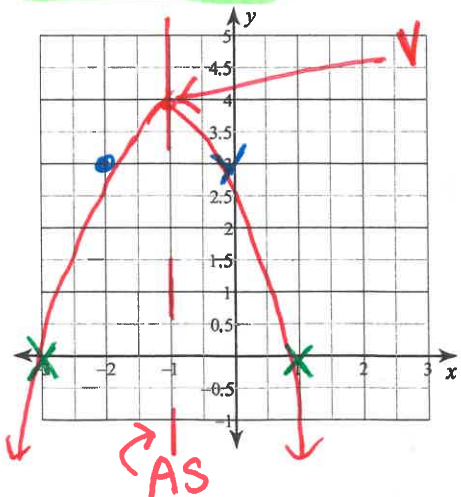
SHOW WORK HERE:

AS: $X = \dfrac{2}{2(-1)}$ $\boxed{X = -1}$ ⟵ MUST show work like this

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

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

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

1) $y = -x^2 - 2x + 3$ ⟶ $\sqrt{A = -1}$ $B = -2$ $C = 3$

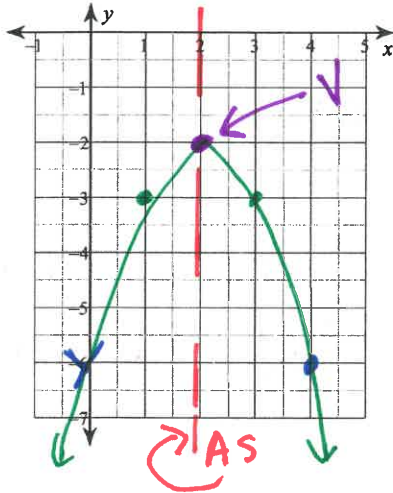| X	-3	-2	-1	0	1
Y	0	3	4	3	0

X INTERCEPTS

2) Solve the quadratic function by graphing.
(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) Mark the y-intercept on the graph with a "Y".
(c) Calculate the axis of symmetry. Mark it "AS" on the graph & give the appropriate eq.
(d) Mark the vertex with a "V" on the graph and label the ordered pair
(e) Mark any x-intercept(s) with X's on the graph.
(f) Solve the quadratic function. The solution(s) are x=_____ $X = \text{NO SOLUTION}$

2) $f(x) = -x^2 + 4x - 6$ $\longrightarrow$ $y = -x^2 + 4x - 6$

$A = -1$ $B = 4$ $C = -6$

AS: $X = \dfrac{-4}{2(-1)}$ $X = 2$ ← EQ

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

(vertex at x=2)

NO XINT'S

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3) Solve the quadratic function by graphing.
(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) Mark the y-intercept on the graph with a "Y".
(c) Calculate the axis of symmetry. Mark it "AS" on the graph and give the appropriate eq.
(d) Mark the vertex with a "V" on the graph and label the ordered pair
(e) Mark any x-intercept(s) with X's on the graph.
(f) Solve the quadratic function. The solution(s) are x=_____ $X = -1, 3$
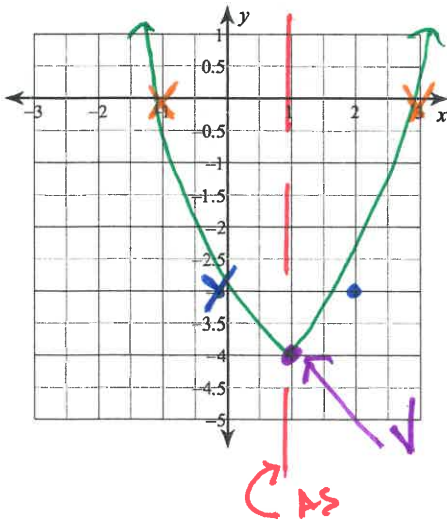
3) $f(x) = x^2 - 2x - 3$ $\longrightarrow$ $y = x^2 - 2x - 3$

$A = 1$ $B = -2$ $C = -3$

AS: $X = \dfrac{2}{2(1)}$ $X = 1$ ← EQ

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

XINT'S