

UNIT 8 DAY 15 - HOMEWORK

Name Key

Solve using Graphing by hand:

1) $x^2 - 2x - 3 = 0$

Max or Min:

$\frac{2}{2(1)} = 1$

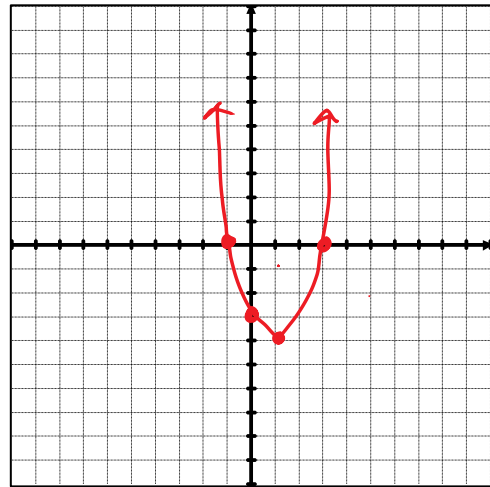
Vertex: (1, -4)

$(1)^2 - 2(1) - 3$
 $1 - 2 - 3$
 $1 - 5$
 -4

y-intercept: (0, -3)

x-intercepts: (3, 0) and (-1, 0)

$x^2 - 2x - 3 = 0$
 $(x - 3)(x + 1) = 0$
 $x = 3 \quad x = -1$



2) $x^2 - 4x + 3 = 0$

Max or Min:

$x^2 - 4x + 3 = 0$
 $(x - 3)(x - 1) = 0$

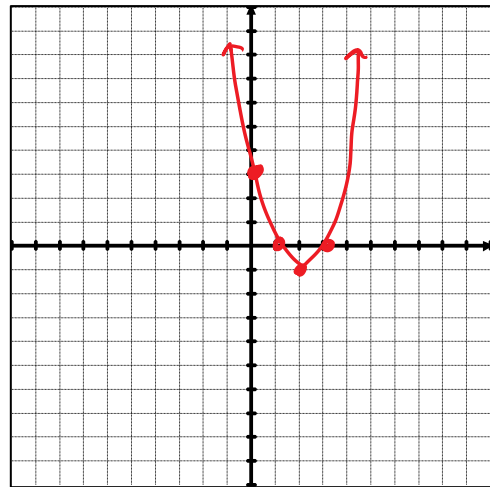
Vertex: (2, -1)

$\frac{4}{2(1)} = 2$

y-intercept: (0, 3)

$(2)^2 - 4(2) + 3$
 $4 - 8 + 3$
 $-4 + 3$
 -1

x-intercepts: (3, 0) and (1, 0)



3) $x^2 + 2x - 8 = 0$

Max or Min:

$(-1)^2 + 2(-1) - 8$
 $1 - 2 - 8 = -9$
 $-\frac{2}{2} = -1$

Vertex: (-1, -9)

y-intercept: (0, -8)

$x^2 + 2x - 8 = 0$
 $(x + 4)(x - 2) = 0$
 $x = -4 \quad x = 2$

x-intercepts: (-4, 0) and (2, 0)

