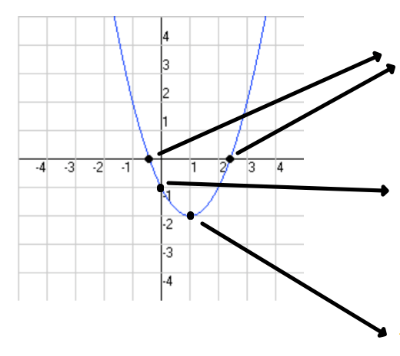
**#8 GRAPHING QUADRATICS**

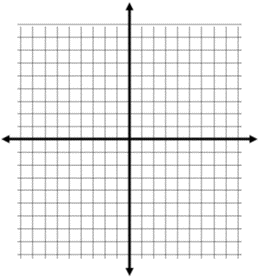
KEY POINTS:



**GRAPHING BY HAND: y = x2 – 4x + 4**

1. Find the vertex How do I do that?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Make a table of values 3. Plot your points.

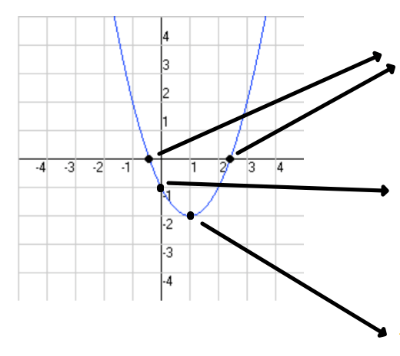
|  |  |
| --- | --- |
| X | Y |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

Solutions are: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Vertex here!

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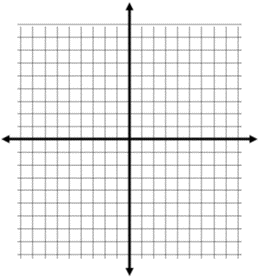
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| --- | --- |
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|  |  |
|  |  |
|  |  |
|  |  |

Solutions are: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Vertex here!

**GRAPHING USING A CALCULATOR: y = x2 + 2x – 3**

* Y = 🡪 enter equation
* GRAPH
* VERTEX
  + 2nd TRACE (CALC)
    - 3: minimum or 4: maximum
      * Left Bound? 🡪 move cursor (blinking dot) to left side of vertex & hit enter
      * Right Bound? 🡪 move cursor to right side of vertex & hit enter
      * Guess? 🡪 hit enter
* X-INTERCEPTS
  + 2nd TRACE (CALC)
    - 2: zero
      * Left Bound? 🡪 On left leg, move cursor to left side of x-axis & hit enter
      * Right Bound? 🡪 On left leg, move cursor to right side of x-axis & hit enter
      * Guess? 🡪 hit enter
  + Repeat for right leg

Solutions are: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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