**Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Class: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Quadratic Graphs Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**EQ:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Warm-Up:** Graph the function over the given domain on the coordinate plane below.

**#1.** 

|  |  |
| --- | --- |
| *x* |  |
| -4 |  |
| -3 |  |
| -2 |  |
| -1 |  |
| 0 |  |
| 1 |  |
| 2 |  |
| 3 |  |
| 4 |  |



Solve for *x*: 

Why did I just solve for x above?

Key Features of Polynomial Functions include:

intercepts, zeroes, axes of symmetry, extrema (vertex: maximum/minimum), and end behavior

**#2.** Graph the function over the given domain. Identify the intercepts, zeroes, axis of symmetry, extrema (maximum/minimum - vertex).





|  |  |
| --- | --- |
| *x* |  |
| -4 |  |
| -3 |  |
| -2 |  |
| -1 |  |
| 0 |  |
| 1 |  |
| 2 |  |
| 3 |  |
| 4 |  |

Solve for *x*: 

**#3.** Graph the function: identify the intercepts, zeroes, axis of symmetry, extrema (maximum/minimum - vertex).





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Solve for *x*: 

**#4.** Graph the function: identify the intercepts, zeroes, axis of symmetry, extrema (maximum/minimum - vertex).





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Solve for *x*: 

**#5.** Graph the function: identify the intercepts, zeroes, axis of symmetry, extrema (maximum/minimum - vertex).





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Solve for *x*: 