Solving & Graphing Quadratic Equations and Inequalities

For each quadratic, determine the vertex, y-intercept and zeros. Then, graph the equation on the right, and graph each different type of inequality below.

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| --- | --- | --- | --- | --- | --- |
| **1.** |  | | Zeros: | |  |
| Vertex in standard form: |  |
|  | |  | |  |  |
|  | |  | |  |  |
| Solutions: | | Solutions: | | Solutions: | Solutions: |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **2.** |  | | Zeros: | |  |
| Vertex in standard form: |  |
|  | |  | |  |  |
|  | |  | |  |  |
| Solutions: | | Solutions: | | Solutions: | Solutions: |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **3.** |  | | Zeros: | |  |
| Vertex in standard form: |  |
|  | |  | |  |  |
|  | |  | |  |  |
| Solutions: | | Solutions: | | Solutions: | Solutions: |

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| --- | --- | --- | --- | --- | --- |
| **4.** |  | | Zeros: | |  |
| Vertex in standard form: |  |
|  | |  | |  |  |
|  | |  | |  |  |
| Solutions: | | Solutions: | | Solutions: | Solutions: |

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| --- | --- | --- | --- | --- |
| **5.** |  | *not in standard form just set = 0!*  Zeros: | |  |
| Vertex in vertex form:  *(Vertex is in the equation)* |  |
|  |  | |  |  |
|  |  | |  |  |
| Solutions: | Solutions: | | Solutions: | Solutions: |

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| --- | --- | --- | --- | --- | --- |
| **6.** |  | | *not in standard form just set = 0!*  Zeros: | |  |
| Vertex in vertex form:  *(Vertex is in the equation)* |  |
|  | |  | |  |  |
|  | |  | |  |  |
| Solutions: | | Solutions: | | Solutions: | Solutions: |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **7.** |  | *not in standard form just set = 0!*  Zeros: | |  |
| Vertex in vertex form:  *(Vertex is in the equation)* |  |
|  |  | |  |  |
|  |  | |  |  |
| Solutions: | Solutions: | | Solutions: | Solutions: |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **8.** |  | *not in standard form just set = 0!*  Zeros: | |  |
| Vertex in vertex form:  *(Vertex is in the equation)* |  |
|  |  | |  |  |
|  |  | |  |  |
| Solutions: | Solutions: | | Solutions: | Solutions: |