Honors Algebra 2 Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Transformations & Graphing Radical Functions Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Block: \_\_\_\_\_\_

**State the parent function for each function below. Then describe the transformation(s) for each function.**

1.)

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Parent Function:** | **Vertical Reflection:** | **Horizontal Reflection:** | **Vertical Stretch by?** | **Vertical Shrink by?** | **Horizontal Stretch by?** | **Horizontal Shrink by?** | **Horizontal Shift: Direction? How many?** | **Vertical Shift: Direction? How many?** |
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2.) 

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| **Parent Function:** | **Vertical Reflection:** | **Horizontal Reflection:** | **Vertical Stretch by?** | **Vertical Shrink by?** | **Horizontal Stretch by?** | **Horizontal Shrink by?** | **Horizontal Shift: Direction? How many?** | **Vertical Shift: Direction? How many?** |
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| **Parent Function:** | **Vertical Reflection:** | **Horizontal Reflection:** | **Vertical Stretch by?** | **Vertical Shrink by?** | **Horizontal Stretch by?** | **Horizontal Shrink by?** | **Horizontal Shift: Direction? How many?** | **Vertical Shift: Direction? How many?** |
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| **Parent Function:** | **Vertical Reflection:** | **Horizontal Reflection:** | **Vertical Stretch by?** | **Vertical Shrink by?** | **Horizontal Stretch by?** | **Horizontal Shrink by?** | **Horizontal Shift: Direction? How many?** | **Vertical Shift: Direction? How many?** |
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| **Parent Function:** | **Vertical Reflection:** | **Horizontal Reflection:** | **Vertical Stretch by?** | **Vertical Shrink by?** | **Horizontal Stretch by?** | **Horizontal Shrink by?** | **Horizontal Shift: Direction? How many?** | **Vertical Shift: Direction? How many?** |
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| **Parent Function:** | **Vertical Reflection:** | **Horizontal Reflection:** | **Vertical Stretch by?** | **Vertical Shrink by?** | **Horizontal Stretch by?** | **Horizontal Shrink by?** | **Horizontal Shift: Direction? How many?** | **Vertical Shift: Direction? How many?** |
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| **Parent Function:** | **Vertical Reflection:** | **Horizontal Reflection:** | **Vertical Stretch by?** | **Vertical Shrink by?** | **Horizontal Stretch by?** | **Horizontal Shrink by?** | **Horizontal Shift: Direction? How many?** | **Vertical Shift: Direction? How many?** |
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8.) 

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| **Parent Function:** | **Vertical Reflection:** | **Horizontal Reflection:** | **Vertical Stretch by?** | **Vertical Shrink by?** | **Horizontal Stretch by?** | **Horizontal Shrink by?** | **Horizontal Shift: Direction? How many?** | **Vertical Shift: Direction? How many?** |
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9.) 

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| **Parent Function:** | **Vertical Reflection:** | **Horizontal Reflection:** | **Vertical Stretch by?** | **Vertical Shrink by?** | **Horizontal Stretch by?** | **Horizontal Shrink by?** | **Horizontal Shift: Direction? How many?** | **Vertical Shift: Direction? How many?** |
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**Graph using transformations. Include the parent function on your graph.**

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| 10.) Graph # 1 |
| 11.)Graph # 6  |