**SL1 Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Intro to Transformations: Square Roots**

**Complete each table and plot the graph. State the domain and range. Then describe how the function differs from**

|  |  |
| --- | --- |
| X | Y=f(x) |
| 0 |  |
| 1 |  |
| 4 |  |
| 6 |  |
| 9 |  |

|  |  |  |
| --- | --- | --- |
| X | Y=f(x) | f(x)-5 |
| 0 |  |  |
| 1 |  |  |
| 4 |  |  |
| 6 |  |  |
| 9 |  |  |

*y*

*x*

**Description: PARENT GRAPH**

*y*

*x*

**Description:**

1.

2.

**+ 4**

6.

5.

**Description:**

*y*

*x*

**Description:**

*y*

*x*

|  |  |
| --- | --- |
| **X** | **Y** |
| 0 |  |
| 1 |  |
| 4 |  |
| 6 |  |
| 9 |  |

|  |  |
| --- | --- |
| X | Y |
| 0 |  |
| 1 |  |
| 4 |  |
| 6 |  |
| 9 |  |

|  |  |  |
| --- | --- | --- |
| X | Y=f(x) | 2f(x) |
| 0 |  |  |
| 1 |  |  |
| 4 |  |  |
| 6 |  |  |
| 9 |  |  |

|  |  |  |
| --- | --- | --- |
| X | Y=f(x) | f(x)+1 |
| 0 |  |  |
| 1 |  |  |
| 4 |  |  |
| 6 |  |  |
| 9 |  |  |

*y*

*x*

**Description:**

*y*

*x*

**Description:**

3.

4.

D: R:

D: R:

D: R:

D: R:

D: R:

D: R:

|  |  |  |
| --- | --- | --- |
| X | 0.5X | Y=f(0.5x) |
|  |  | 0 |
|  |  | 1 |
|  |  | 2 |
|  |  | 2.45 |
|  |  | 3 |

|  |  |  |
| --- | --- | --- |
| x | -X | Y=f(-x) |
|  |  | 0 |
|  |  | 1 |
|  |  | 2 |
|  |  | 2.45 |
|  |  | 3 |

|  |  |  |
| --- | --- | --- |
| x | X-1 | Y |
|  |  | 0 |
|  |  | 1 |
|  |  | 2 |
|  |  | 2.45 |
|  |  | 3 |

|  |  |  |
| --- | --- | --- |
| x | X+5 | Y |
|  |  | 0 |
|  |  | 1 |
|  |  | 2 |
|  |  | 2.45 |
|  |  | 3 |

*y*

*x*

**Description:**

*y*

*x*

**Description:**

7.

8.

D: R:

D: R:

D: R:

D: R:

D: R:

D: R:

12.

11.

**Description:**

*y*

*x*

**Description:**

*y*

*x*

|  |  |  |
| --- | --- | --- |
|  | X | Y |
|  |  | 0 |
|  |  | 1 |
|  |  | 2 |
|  |  | 2.45 |
|  |  | 3 |

|  |  |  |
| --- | --- | --- |
|  | X | Y |
|  |  | 0 |
|  |  | 1 |
|  |  | 2 |
|  |  | 2.45 |
|  |  | 3 |

10.

9.

**Description:**

*y*

*x*

**Description:**

*y*

*x*