GSE Algebra 1 **HW** #**6.3** **Characteristics** Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. For the following, list out all that you know.

|  |
| --- |
| Vertex: Axis of symmetry: Function?  y-intercept: x-intercepts: Domain:  Direction: Max or min? Range:  Increasing: Decreasing: Disc/Cont |
| Vertex: Axis of symmetry: Function?  y-intercept: x-intercepts: Domain:  Direction: Max or min? Range:  Increasing: Decreasing: Disc/Cont  What do you notice about the equation and the graph?  Multiply out the equation to give you standard form. |
| 1. Multiply out the following binomials to put in standard form. 2. b. (8x – 3)(2x – 1) c. (4x – 2)(8x + 10) 3. –(x + 1)(x – 4) e. (3x – 5)(x – 1) f. –x(4x – 17) |

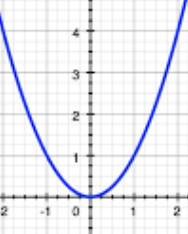
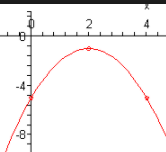
1. For the following tables, tell whether they are **linear**, **quadratic** or **neither**. Then show what the pattern is.

|  |  |
| --- | --- |
| x | y |
| -3 | -23 |
| -2 | -17 |
| -1 | -11 |
| 0 | -5 |
| 1 | 1 |
| 2 | 7 |
| 3 | 13 |

|  |  |
| --- | --- |
| x | y |
| -3 | 4 |
| -2 | 0 |
| -1 | -2 |
| 0 | -2 |
| 1 | 0 |
| 2 | 4 |
| 3 | 10 |

|  |  |
| --- | --- |
| x | y |
| -3 | 48 |
| -2 | 22 |
| -1 | 0 |
| 0 | 1 |
| 1 | 4 |
| 2 | 9 |
| 3 | 16 |

1. For the following pictures, tell what the **Domain**, **Range**, **Vertex** and **Direction** are.

Domain:

Range:

Vertex:

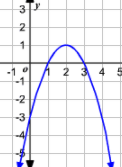
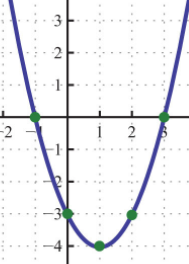
Direction:

Domain:

Range:

Vertex:

Direction:

Domain:

Range:

Vertex:

Direction:

Domain:

Range:

Vertex:

Direction: