**Domain & Range**

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| --- | --- | --- | --- | --- |
| **Domain:** All the x-values you can use.All Real Numbers \_\_\_\_\_ | **Range:**All the y-values you can get out.

|  |
| --- |
| If both arrows point \_\_\_\_,**y \_\_\_\_\_ y-coordinate** (from \_\_\_\_\_ value) |
| If both arrows point \_\_\_\_,**y \_\_\_\_\_ y-coordinate** (from \_\_\_\_\_ value) |
| If arrows point \_\_\_\_\_ directions, \_\_\_\_\_\_\_\_ |

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**Intercepts**

|  |  |
| --- | --- |
| **X-Intercept:**the point (\_\_\_\_). The x-coordinate from the x-intercept is the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of the polynomial. | **Y-Intercept:**the point (\_\_\_\_). There will \_\_\_\_\_\_\_ be one. |

**Intervals of Increase/Decrease**

|  |  |
| --- | --- |
| **Increase:** the \_\_\_\_\_\_\_ of the graph where it goes \_\_\_\_\_ from \_\_\_\_\_\_\_\_\_ to \_\_\_\_\_\_\_\_\_. | **Decrease:** the \_\_\_\_\_\_\_\_\_\_ of the graph where it goes \_\_\_\_\_\_\_\_\_\_ from \_\_\_\_\_\_\_\_ to \_\_\_\_\_\_\_\_\_. |
| Join multiple intervals with a "\_\_\_\_\_\_."The \_\_\_\_ stands for \_\_\_\_\_\_\_. |

**Absolute Maximum/Minimum**

|  |  |
| --- | --- |
| **Absolute Maximum:** the \_\_\_\_\_\_\_\_\_\_ point of \_\_\_\_\_\_\_\_ the points on the graph. | **Absolute Minimum:** the \_\_\_\_\_\_\_\_\_\_ point of \_\_\_\_\_\_\_\_ the points on the graph. |

**Relative Maximum/Minimum**

|  |  |
| --- | --- |
| **Relative Maximum:** the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ on a \_\_\_\_\_\_. | **Relative Minimum:** the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ on a \_\_\_\_\_\_. |

**Even/Odd/Neither Functions**

|  |  |
| --- | --- |
| **Even:**have \_\_\_\_\_\_\_\_\_ about the \_\_\_\_\_\_\_. [If you folded the graph along the y-axis, the left side and right side would overlap.] | **Odd:** have \_\_\_\_\_\_\_\_ about the \_\_\_\_\_\_\_\_.[If you folded the graph along the x & y-axis, the graph would overlap itself.] |
| **If a function is not even or odd, it is neither.** |

**End Behavior:**

Describes what f(x) does if you could follow the graph FOREVER!



\*If the arrow points up, use \_\_\_\_\_\_\_\_\_\_.

\*If the arrow points down, use \_\_\_\_\_\_\_.

**If a characteristic does not exist, write \_\_\_\_\_\_\_.**

|  |
| --- |
| Example # 1:  |
|  |
| Domain: \_\_\_\_\_\_\_\_\_Range: \_\_\_\_\_\_\_\_\_\_x-intercept: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_zeros: \_\_\_\_\_\_\_\_\_\_\_y-intercept: \_\_\_\_\_\_Intervals of Increase: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Intervals of Decrease: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | Relative Maximum: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Relative Minimum: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Absolute Maximum: \_\_\_\_\_\_\_\_\_\_\_\_\_\_Absolute Minimum: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Even/Odd/Neither: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_End Behavior:  |
| Example # 2:  |
|  |
| Domain: \_\_\_\_\_\_\_\_\_Range: \_\_\_\_\_\_\_\_\_\_x-intercept: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_zeros: \_\_\_\_\_\_\_\_\_\_\_y-intercept: \_\_\_\_\_\_Intervals of Increase: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Intervals of Decrease: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | Relative Maximum: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Relative Minimum: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Absolute Maximum: \_\_\_\_\_\_\_\_\_\_\_\_\_\_Absolute Minimum: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Even/Odd/Neither: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_End Behavior:  |