Task #2: f(x) = x^3-7\*x^2 + 15\*x -9

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| Left Extent | Right Extent | Graph | Observation |
| -5 | 0 |  | As the function reaches on 0 on a small x axis, the graph seems to be curving up while reducing velocity.  The function comes from negative infinity to form a small curve at 0. |
| 0 | 5 |  | From 0 on a small x axis, the graph shows it polynomial characteristics. Because of the x^3, the graph seems to flip. From the vertex, the graph quickly accelerates to infinity. |
| -50 | 0 |  | On a larger scale, the graph can be clearly seen having a decreasing curve as it gets closer to 0. |
| 0 | 50 |  | On a larger scale, the graph is seen rapidly increasing to infinity after leveling off from 0. |

Task #3: f(x) = sin(1/x)

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| --- | --- | --- | --- |
| Left Extent | Right Extent | Graph | Observation |
| -5 | 5 |  | The graph has a lot of activity where x = 0. This is because 1/0 does not exist and therefore, sin(1/0) does not exist. This causes the graph to rapidly change as the function changes. |
| -1 | 1 |  | The sine graph seems to be fluctuating faster as it reaches 0 from both sides. The revolution of the sine decreases as x gets closer to 0. |
| -1 | 0 |  | As x gets closer to 0 from the left, the graph fluctuates rapidly to form positive and negative curves with decreasing space. |
| 0 | 1 |  | As x goes to infinity from 0, the fluctuations from the graph reduce to form a sine revolution with longer length. |