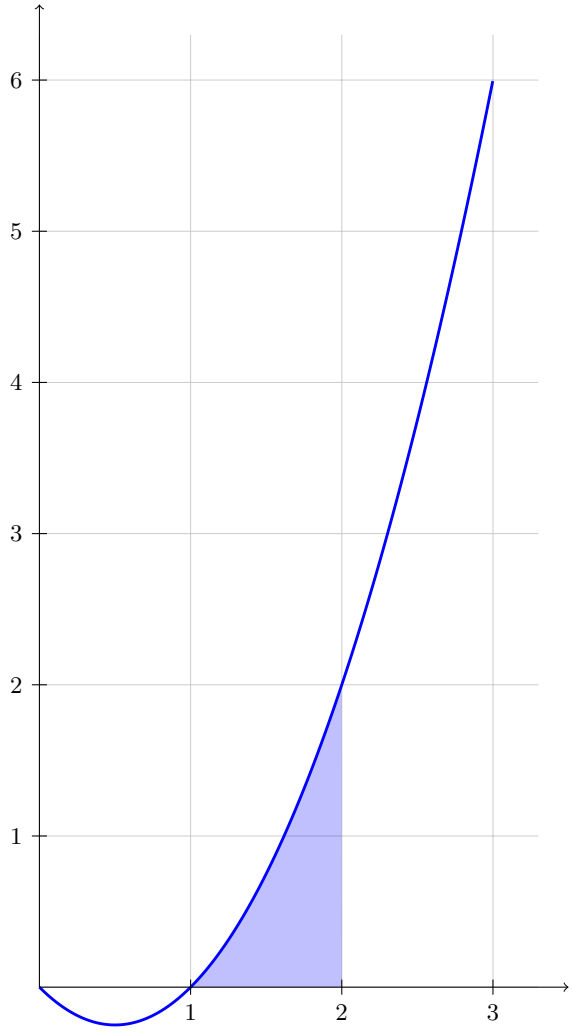
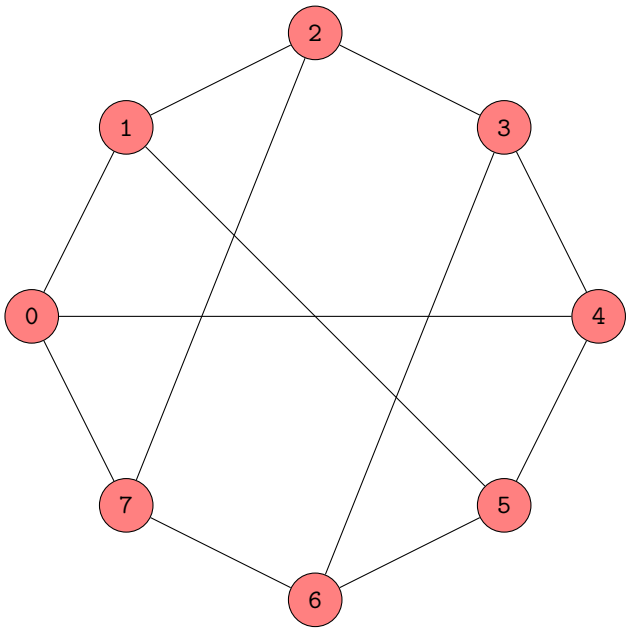
Assignment 5

Cameron Fredrickson

1. The graph of the function $x^2 - x$ on $[0, 3]$, with the are underneath the curve on $[1, 2]$ representing the area calculated by $\int_1^2 \left(x^2 - x\right)\, dx$.



2. Wikipedia states: In the mathematical field of graph theory, the Wagner Graph is a 3-regular graph with 8 verticies and 12 edges. In a regular graph each vertex has the same number of neighbors, where vertex B is a neighbor of vertex A if vertex B shares an edge with vertex A. Here is one representation of a Wagner Graph[1].



[1]To graph this I assumed the picture on Wolfram Alpha was of a regular octogon (equiangular and equilateral) turned on it's side. I used simple trigonometry to find the interior angles of the polygon and the locations of the vertices