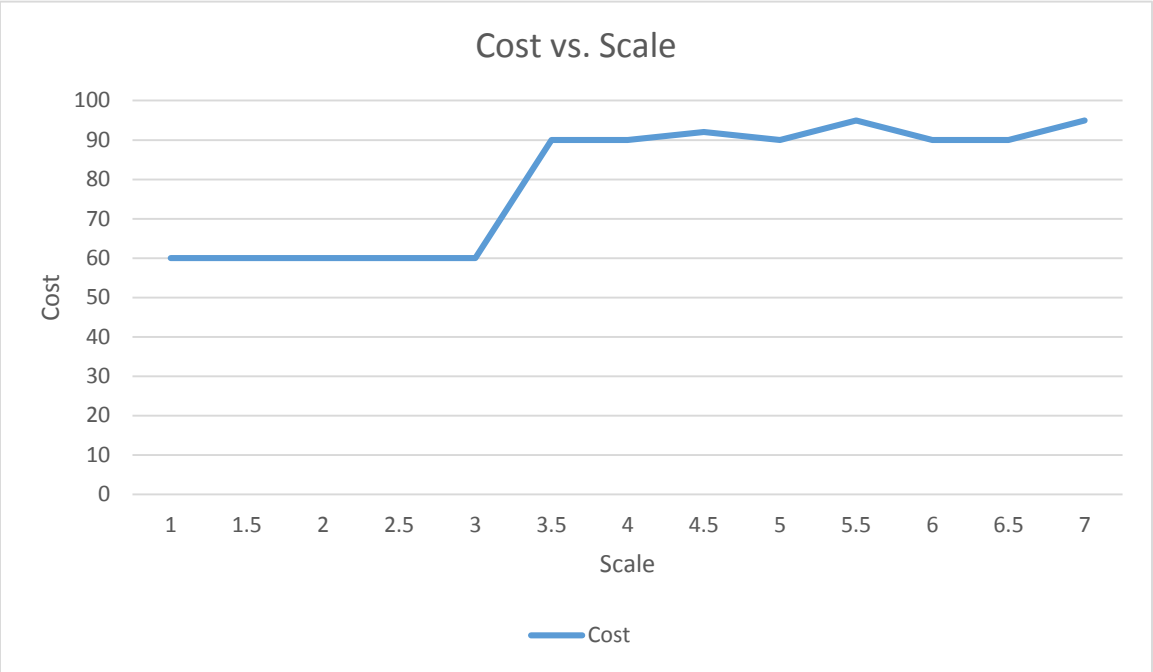

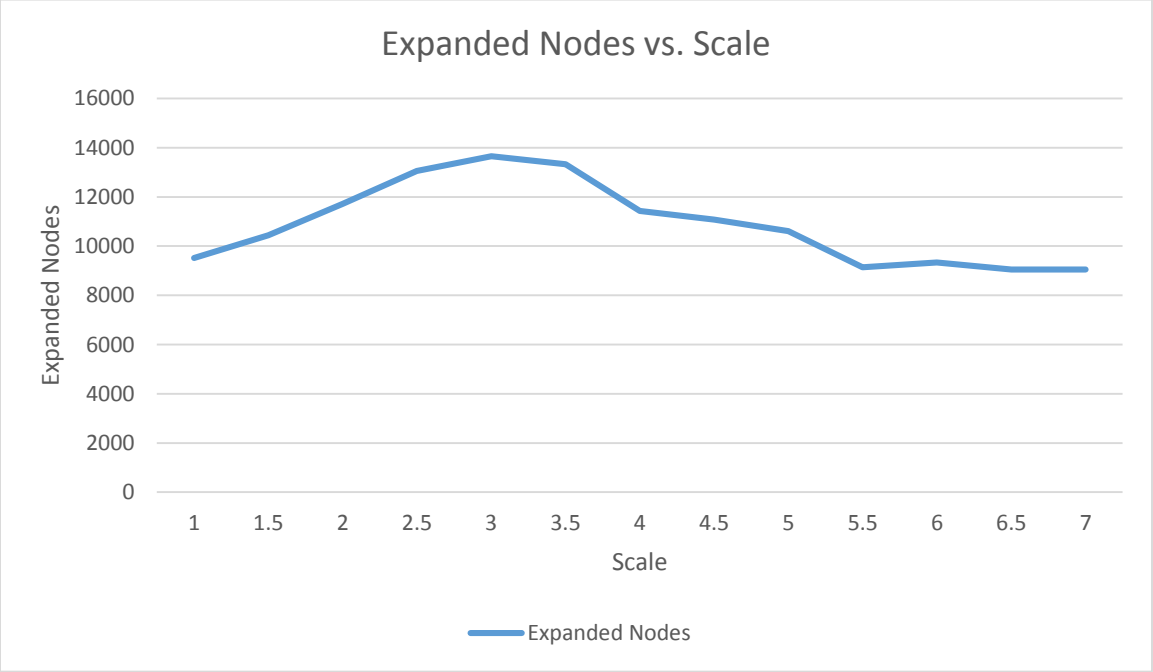

Changing the scales of weights on the heuristics leads to different combinations of tradeoffs between the number of expanded nodes and the cost of the path. With the specific example, with the first few scales, with the cost remaining the same, the number of expanded nodes gradually increases. When the cost increases, the number of expanded nodes starts to decrease. With the weighted search, there were some combinations that were slightly more favorable than others. For example, a scale of 6.5 had a cost of 90 but only 9054 expanded nodes, versus a scale of 3.5 which also had a cost of 90 and 13334 expanded nodes. As such, certain combinations are more favorable than others. However, the overall trend follows that when the cost increases, the number of expanded nodes decreases and thus the search is performed quicker (more nodes means longer time it takes to find path).