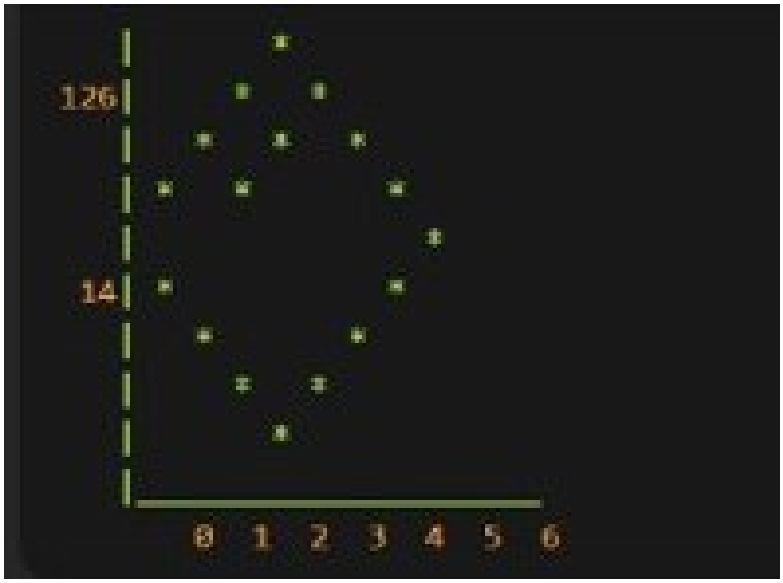
In this example, we can see that alpha beta algorithm explores fewer nodes than the minmax algorithm at each depth, indicating better performance. At a depth of 6 , the alpha-beta algorithm only explores 14 nodes ,while the minmax algorithm explore 126 nodes .

To create the graph, we can plot the number of nodes explored by each algorithm at each depth. Here is an example graph:



The performance of the alpha-beta and minmax algorithm can be measured by comparing the number of nodes explored during the search process for a given game tree.

The fewer the number of nodes explored, the better the performance of the algorithm.

To create graph comparing the performance of the two algorithms, we can plot the number of nodes explored on the y-axis and the depth of the game tree on x-axis. We can run both algorithms on the same game tree and record the number of nodes explored at each depth.

Here is an example graph showing the number of nodes explored by the alpha-beta and minmax algorithms on a game tree with a maximum depth of 6: