Notes on interpreting data:

M1 and A1 are minimax and alphabeta respectively, where the number is the depth.

The rows are player 1 (X). Node1 shows the nodes player 1 checked, and Winner is true if player 1 won. Node2 shows the nodes checked by player 2 (the columns.)

Our data is mostly what we expected. AB examines significantly less nodes, but only as the trees get more complex. In a simple tree, the chances of pruning are much lower due to the simplicity of decision, and so doesn’t get as many chances to prune. However, the more complex, the more pruning accomplished.

Also, although a deeper player would sometimes lose to a shallower (in ours, even 7 lost to 1), overall the deeper player won most of the time. It is possible that the shallow player may make some strange moves that appear poor but have a big payoff in the end. The deep player may avoid these because they appear poor for, say, the next 5 moves, but the shallow player, not realizing this, takes them and they turn out by chance to be even better if one were to look farther ahead. Still, as was the case, this should be a rare exception.