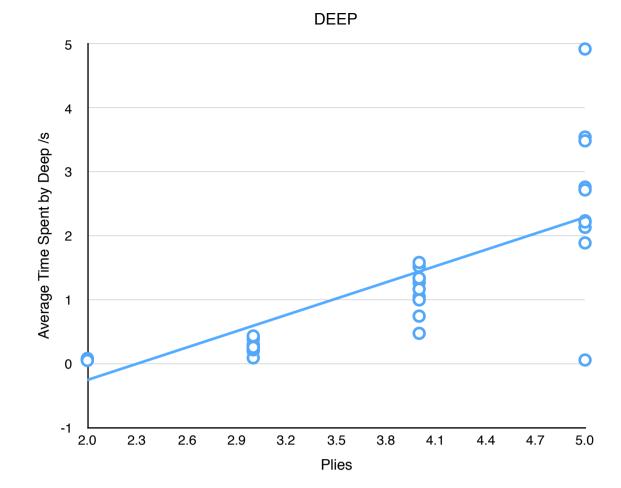
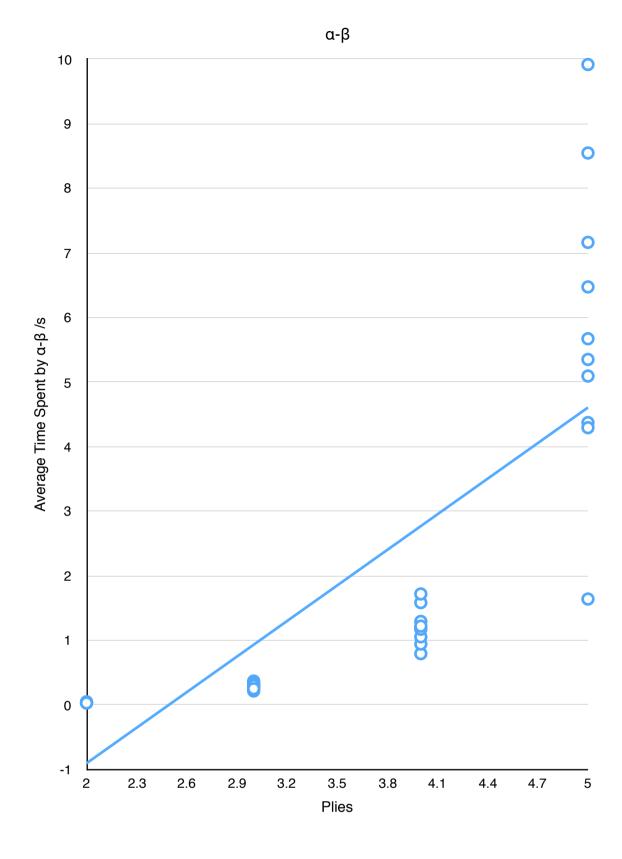
| Time Taken<br>Deep | Depth<br>Deep |
|--------------------|---------------|
| 0.0595             | 2             |
| 0.0574             | 2             |
| 0.0567             | 2             |
| 0.0592             | 2             |
| 0.0604             | 2             |
| 0.0789             | 2             |
| 0.0674             | 2             |
| 0.0606             | 2             |
| 0.0468             | 2             |
| 0.0545             | 2             |
|                    |               |
| 0.1934             | 3             |
| 0.0876             | 3             |
| 0.3835             | 3             |
| 0.3001             | 3             |
| 0.4308             | 3             |
| 0.2574             | 3             |
| 0.2272             | 3             |
| 0.2531             | 3             |
| 0.2137             | 3             |
| 0.2534             | 3             |
|                    |               |
| 1.0475             | 4             |
| 1.5189             | 4             |
| 0.4721             | 4             |
| 1.3333             | 4             |
| 1.2665             | 4             |
| 1.3377             | 4             |
| 0.7418             | 4             |
| 1.5826             | 4             |
| 0.9965             | 4             |
| 1.1642             | 4             |
|                    |               |
| 2.7635             | 5             |
| 2.2355             | 5             |
| 2.7193             | 5             |
| 2.1327             | 5             |
| 0.0543             | 5             |
| 1.8886             | 5             |
| 4.9275             | 5             |
| 2.2164             | 5             |
| 3.5473             | 5             |
| 3.4887             | 5             |



I recorded this data by increasing the depth of the Deep AI while keeping the depth of its opponent AI constant.

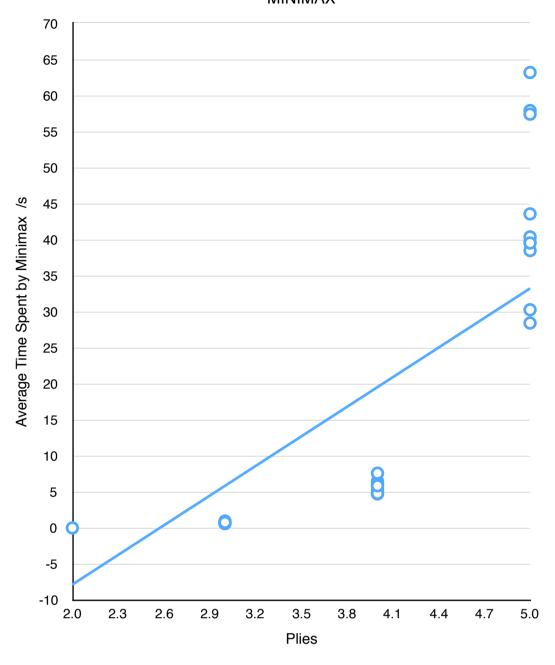
| Time Taken<br>α-β | Depth<br>α-β |
|-------------------|--------------|
| 0.0297            | 2            |
| 0.0361            | 2            |
| 0.0494            | 2            |
| 0.0417            | 2            |
| 0.0316            | 2            |
| 0.0408            | 2            |
| 0.0392            | 2            |
| 0.0341            | 2            |
| 0.0371            | 2            |
| 0.0362            | 2            |
|                   |              |
| 0.2169            | 3            |
| 0.3699            | 3            |
| 0.3323            | 3            |
| 0.3404            | 3            |
| 0.2692            | 3            |
| 0.3138            | 3            |
| 0.2886            | 3            |
| 0.3117            | 3            |
| 0.2999            | 3            |
| 0.2516            | 3            |
|                   |              |
| 1.5852            | 4            |
| 1.1894            | 4            |
| 1.7197            | 4            |
| 0.7949            | 4            |
| 0.9442            | 4            |
| 1.2024            | 4            |
| 1.2943            | 4            |
| 1.0556            | 4            |
| 1.1731            | 4            |
| 1.2214            | 4            |
|                   |              |
| 4.3740            | 5            |
| 5.0950            | 5            |
| 9.9202            | 5            |
| 6.4758            | 5            |
| 5.6727            | 5            |
| 5.3520            | 5            |
| 1.6411            | 5            |
| 4.2953            | 5            |
| 8.5498            | 5            |
| 7.1656            | 5            |



I recorded this data by increasing the depth of the  $\alpha\text{-}\beta$  AI while keeping the depth of its opponent AI constant.

| Time Taken<br>Minimax | Depth<br>Minimax |
|-----------------------|------------------|
| 0.0650                | 2                |
| 0.0576                | 2                |
| 0.0682                | 2                |
| 0.0512                | 2                |
| 0.0701                | 2                |
| 0.0726                | 2                |
| 0.0531                | 2                |
| 0.0582                | 2                |
| 0.0566                | 2                |
| 0.0509                | 2                |
|                       |                  |
| 0.6919                | 3                |
| 0.7974                | 3                |
| 1.0144                | 3                |
| 1.0893                | 3                |
| 0.9847                | 3                |
| 0.6658                | 3                |
| 0.9357                | 3                |
| 0.8336                | 3                |
| 0.7876                | 3                |
| 0.8157                | 3                |
|                       |                  |
| 4.7782                | 4                |
| 6.5246                | 4                |
| 4.9723                | 4                |
| 6.2016                | 4                |
| 5.3253                | 4                |
| 7.6532                | 4                |
| 7.6165                | 4                |
| 7.6303                | 4                |
| 4.8496                | 4                |
| 5.9072                | 4                |
|                       |                  |
| 28.4670               | 5                |
| 30.3032               | 5                |
| 38.5115               | 5                |
| 57.9110               | 5                |
| 39.6961               | 5                |
| 43.5904               | 5                |
| 57.4179               | 5                |
| 40.4069               | 5                |
| 39.5599               | 5                |
| 63.1937               | 5                |

## MINIMAX



I recorded this data by increasing the depth of the Minimax AI while keeping the depth of its opponent AI constant.

| Depth<br>Deep | Time Taken<br>Deep | Time Taken<br>α-β | Time Taken<br>Minimax |
|---------------|--------------------|-------------------|-----------------------|
| 2             | 0.0595             | 0.0297            | 0.0650                |
| 2             | 0.0574             | 0.0361            | 0.0576                |
| 2             | 0.0567             | 0.0494            | 0.0682                |
| 2             | 0.0592             | 0.0417            | 0.0512                |
| 2             | 0.0604             | 0.0316            | 0.0701                |
| 2             | 0.0789             | 0.0408            | 0.0726                |
| 2             | 0.0674             | 0.0392            | 0.0531                |
| 2             | 0.0606             | 0.0341            | 0.0582                |
| 2             | 0.0468             | 0.0371            | 0.0566                |
| 2             | 0.0545             | 0.0362            | 0.0509                |
|               |                    |                   |                       |
| 3             | 0.1934             | 0.2169            | 0.6919                |
| 3             | 0.0876             | 0.3699            | 0.7974                |
| 3             | 0.3835             | 0.3323            | 1.0144                |
| 3             | 0.3001             | 0.3404            | 1.0893                |
| 3             | 0.4308             | 0.2692            | 0.9847                |
| 3             | 0.2574             | 0.3138            | 0.6658                |
| 3             | 0.2272             | 0.2886            | 0.9357                |
| 3             | 0.2531             | 0.3117            | 0.8336                |
| 3             | 0.2137             | 0.2999            | 0.7876                |
| 3             | 0.2534             | 0.2516            | 0.8157                |
|               |                    |                   |                       |
| 4             | 1.0475             | 1.5852            | 4.7782                |
| 4             | 1.5189             | 1.1894            | 6.5246                |
| 4             | 0.4721             | 1.7197            | 4.9723                |
| 4             | 1.3333             | 0.7949            | 6.2016                |
| 4             | 1.2665             | 0.9442            | 5.3253                |
| 4             | 1.3377             | 1.2024            | 7.6532                |
| 4             | 0.7418             | 1.2943            | 7.6165                |
| 4             | 1.5826             | 1.0556            | 7.6303                |
| 4             | 0.9965             | 1.1731            | 4.8496                |
| 4             | 1.1642             | 1.2214            | 5.9072                |
|               |                    |                   |                       |
| 5             | 2.7635             | 4.3740            | 28.4670               |
| 5             | 2.2355             | 5.0950            | 30.3032               |
| 5             | 2.7193             | 9.9202            | 38.5115               |
| 5             | 2.1327             | 6.4758            | 57.9110               |
| 5             | 0.0543             | 5.6727            | 39.6961               |
| 5             | 1.8886             | 5.3520            | 43.5904               |
| 5             | 4.9275             | 1.6411            | 57.4179               |
| 5             | 2.2164             | 4.2953            | 40.4069               |
| 5             | 3.5473             | 8.5498            | 39.5599               |
| 5             | 3.4887             | 7.1656            | 63.1937               |

