Chess Database

# TPK4186 - Advanced Tools for Performance Engineering Assingment 2: Chess Game

## Created by: Christian G Kartveit

# Task 7

The table below shows the amount of games won, drawn and lost by Stockfish 15 64-bit

|  |  |  |
| --- | --- | --- |
| Won | Draw | Lost |
| 992 | 1600 | 8 |

The table below shows the amount of games won, drawn and lost by Stockfish 15 64-bit as white

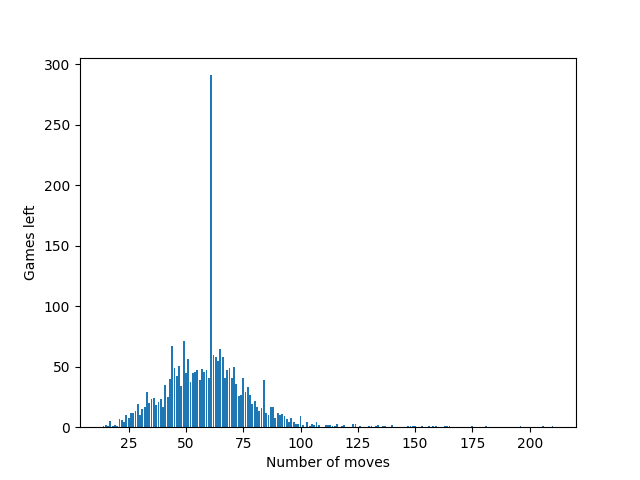
|  |  |  |
| --- | --- | --- |
| Won | Draw | Lost |
| 698 | 601 | 2 |

The table below shows the amount of games won, drawn and lost by Stockfish 15 64-bit as black

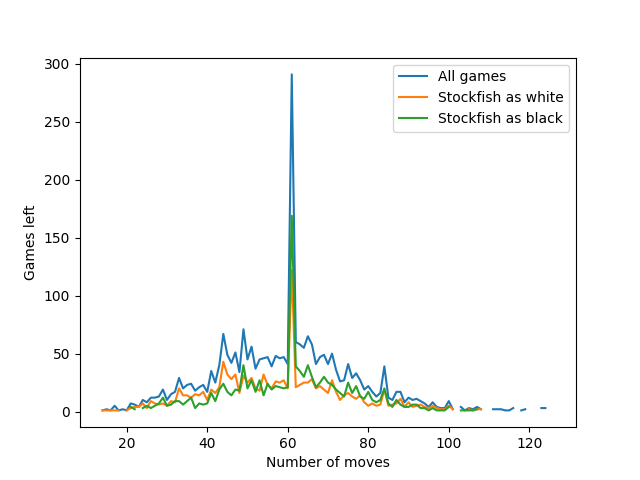
|  |  |  |
| --- | --- | --- |
| Won | Draw | Lost |
| 294 | 999 | 6 |

# Task 8

The graph below shows the amount of games left for Stockfish 15 64-bit after x moves



The graph below shows the amount of games left for Stockfish after moves, with Black, White and all games in the same plot

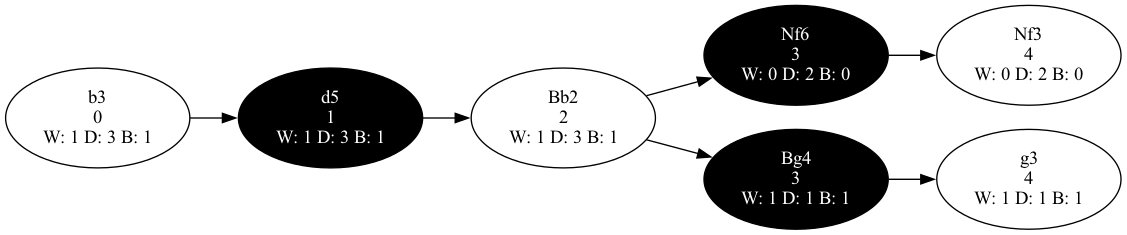


## Average and Standard Deviation for all Stockfish games

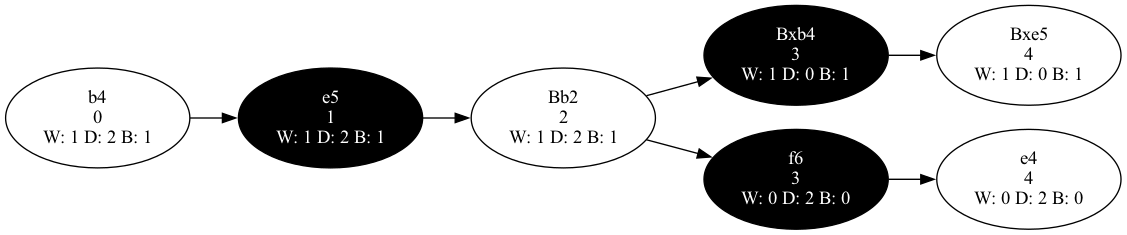
|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | White won | White draw | White lost | Black won | Black draw | Black lost | Total won | Total draw | Total lost |
| Average | 54.205 | 64.067 | 65.0 | 57.15 | 63.226 | 69.833 | 55.078 | 63.542 | 68.625 |
| Standard Deviation | 8.77 | 10.313 | 0.471 | 5.324 | 12.381 | 0.64 | 10.293 | 16.117 | 0.803 |

# Task 11

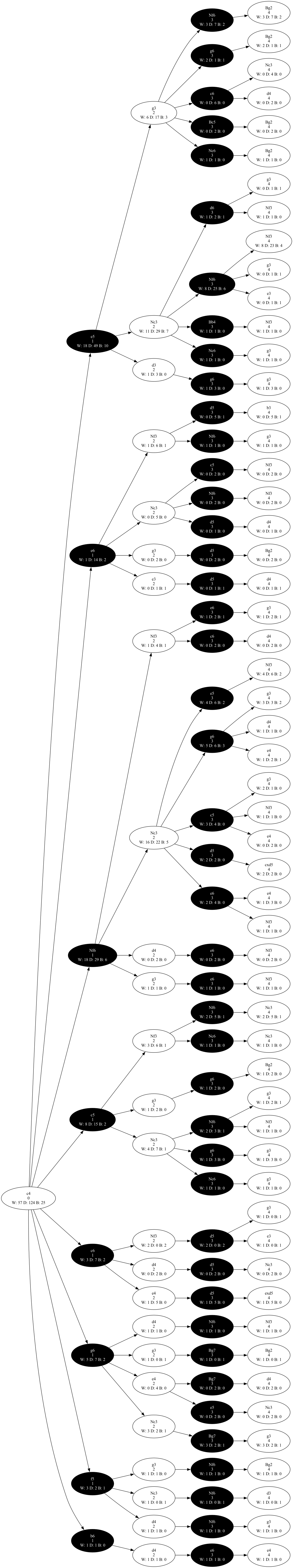
The graphs below are openings from all games in the database. It will display all possible openings with a specified depth in the function. In this case, the depth is 5



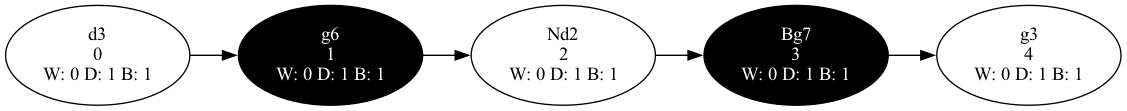
b3 opening



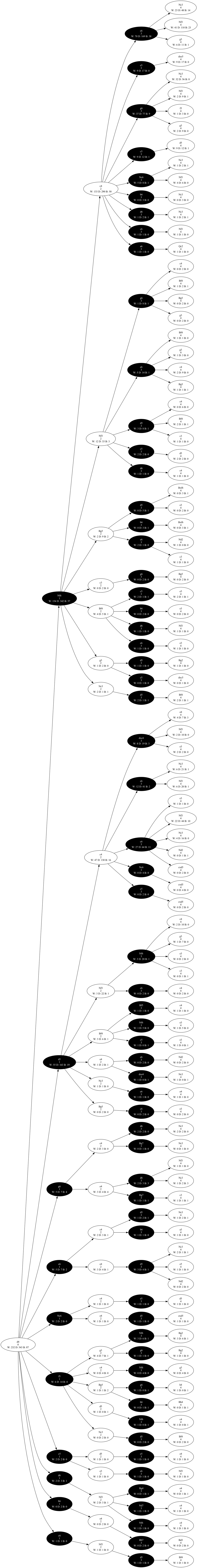
b4 opening



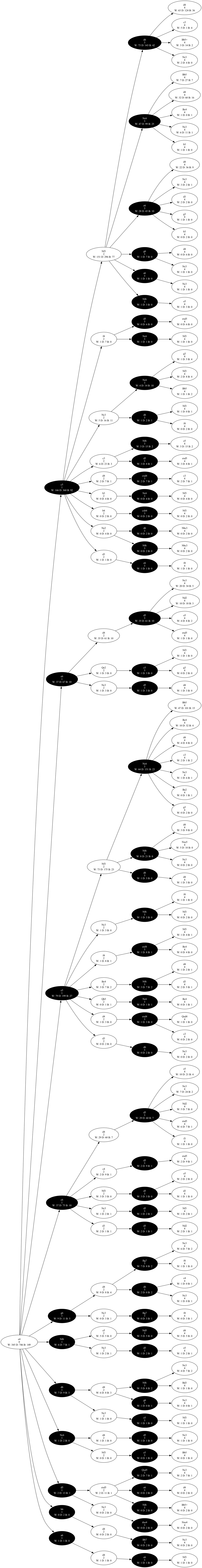
c4 opening



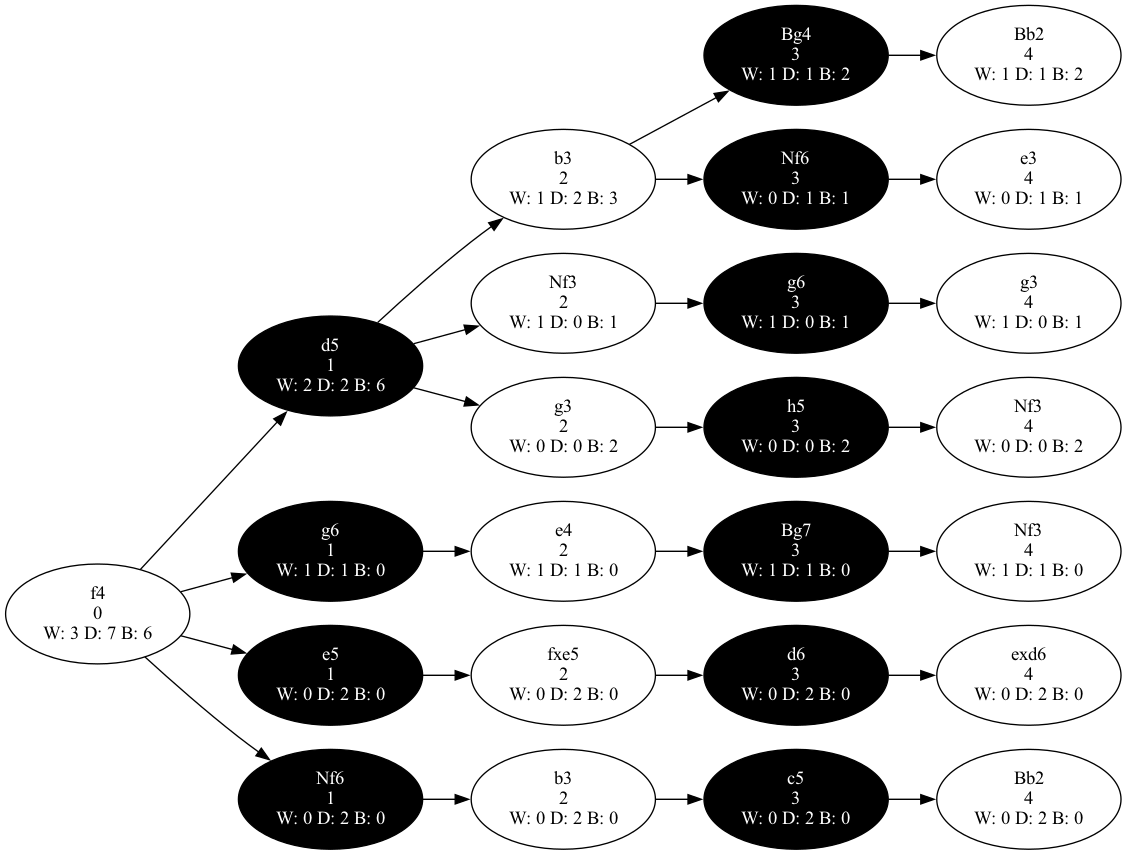
d3 opening



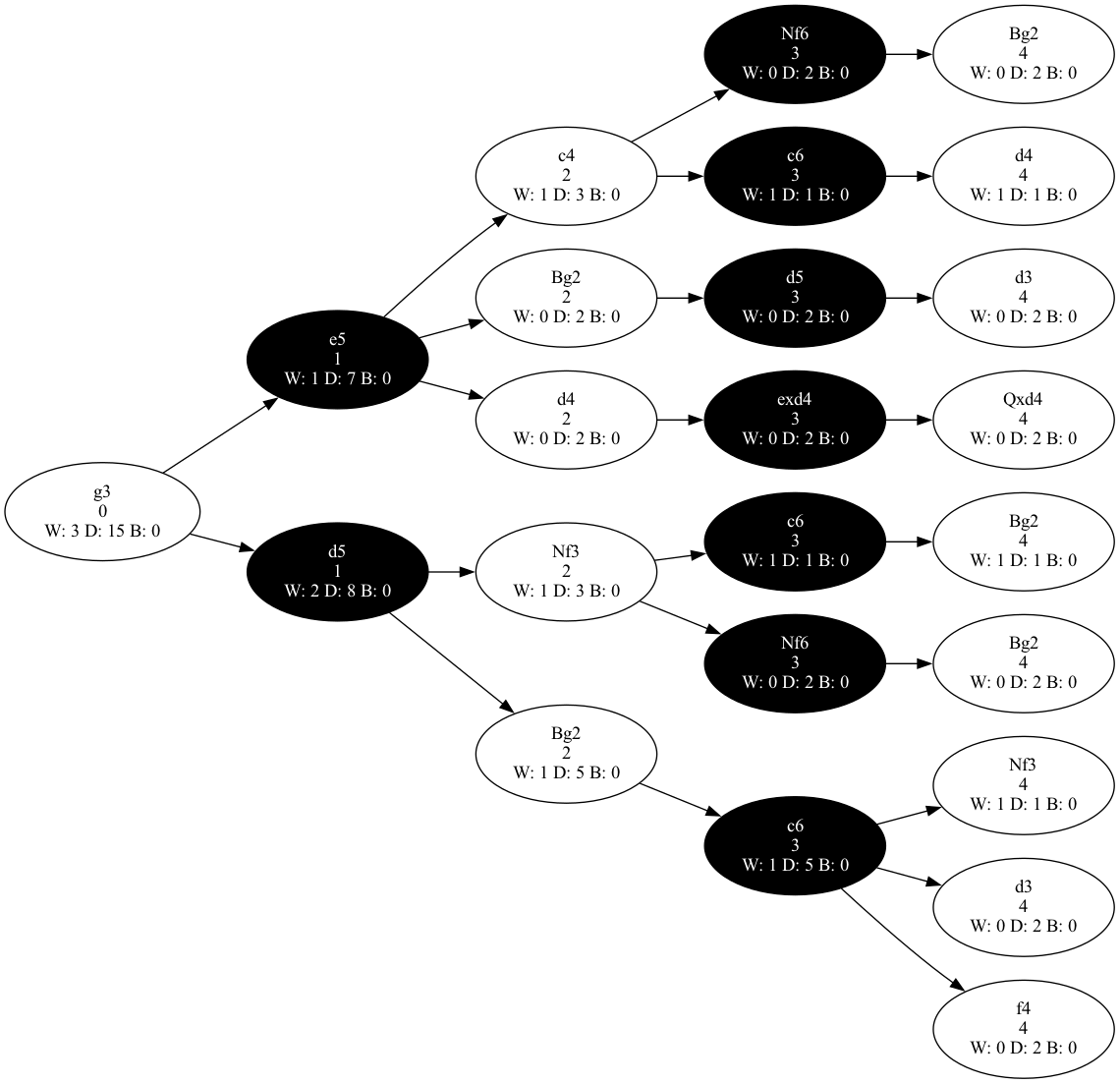
d4 opening



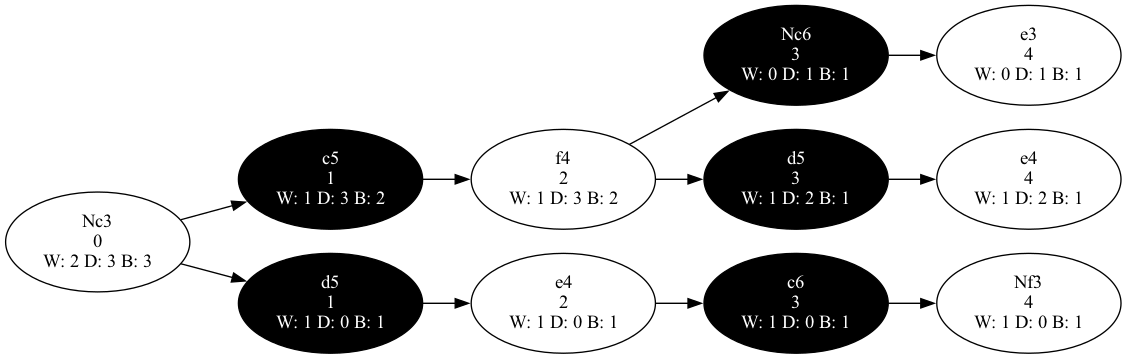
e4 opening



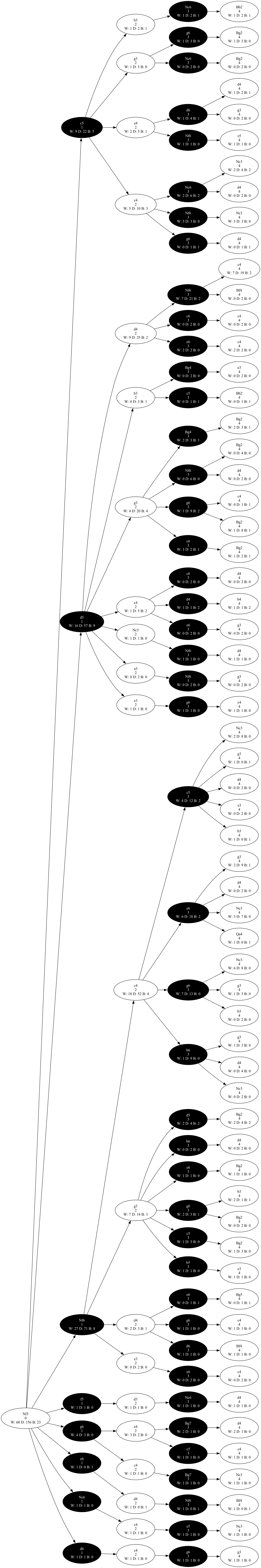
f4 opening



g3 opening



Nc3 opening



Nf3 opening

# Task 12

The table below shows the amount openings played. The table is automatically created with all openings played more than N times. N is set to 50 in this case.

|  |  |
| --- | --- |
| Opening | Frequency |
| Sicilian | 582 |
| Ruy Lopez | 164 |
| English | 153 |
| French | 130 |
| Caro-Kann | 122 |
| QGD | 120 |
| Queen's Indian | 102 |
| English opening | 88 |
| King's Indian | 85 |
| Nimzo-Indian | 79 |
| QGD semi-Slav | 76 |
| Queen's pawn game | 69 |
| QGD Slav | 52 |