Analysis of DiceGameSolver

Player A: 6 6-Sided dice vs Player B: 9 4-Sided Dice

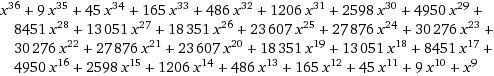
Player A:

(x + x^2 + x^3 + x^4 + x^5 + x^6)^6

x^{36}+ 6x^{35} + 21x^{34} + 56x^{33} + 126 x^{32} + 252 x^{31} + 456 x^{30} + 756x^{29} + 1161x^{28} + 1666 x^{27} + 2247x^{26} + 2856 x^{25} + 3431x^{24} + 3906x^{23} + 4221x^{22} + 4332x^{21} + 4221x^{20} + 3906x^{19} + 3431x^{18} + 2856x^{17} + 2247x^{16} + 1666x^{15} + 1161x^{14} + 756x^{13} + 456x^{12} + 252x^{11} + 126x^{10} + 56x^9 + 21x^8 + 6 x^7 + x^6

Player B:

(x + x^2 + x^3 + x^4)^9



|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Sum of 6 6-Sided | Probability | Sum of 9 4-Sided | Probability | Prob A Wins |
| 36 | (1/46656) | 36 | 1/262144 | .023127 |
| 35 | (1/7776) | 35 | 1/29127 |  |
| 34 | (1/2222) | 34 | 1/5825 |  |
| 33 | (1/833) | 33 | 1/1589 |  |
| 32 | (1/370) | 32 | 1/539 |  |
| 31 | (1/185) | 31 | 1/217 |  |
| 30 | (1/102) | 30 | 1/101 |  |
| 29 | (1/62) | 29 | 1/53 |  |
| 28 | (1/40) | 28 | 1/31 |  |
| 27 | (1/28) | 27 | 1/20 |  |
| 26 | (1/21) | 26 | 1/14 |  |
| 25 | (1/16) | 25 | 1/11 |  |
| 24 | (1/14) | 24 | 1/9 |  |
| 23 | (1/12) | 23 | 1/9 |  |
| 22 | (1/11) | 22 | 1/9 |  |
| 21 | (1/11) | 21 | 1/9 |  |
| 20 | (1/11) | 20 | 1/11 |  |
| 19 | (1/12) | 19 | 1/14 |  |
| 18 | (1/14) | 18 | 1/20 |  |
| 17 | (1/16) | 17 | 1/31 |  |
| 16 | (1/21) | 16 | 1/53 |  |
| 15 | (1/28) | 15 | 1/101 |  |
| 14 | (1/40) | 14 | 1/217 |  |
| 13 | (1/62) | 13 | 1/539 |  |
| 12 | (1/102) | 12 | 1/1589 |  |
| 11 | (1/185) | 11 | 1/5825 |  |
| 10 | (1/370) | 10 | 1/29127 |  |
| 9 | (1/833) | 9 | 1/262144 |  |
| 8 | (1/2222) | 8 | 0 | .00045 |
| 7 | (1/7776) | 7 | 0 | .000129 |
| 6 | 1/(6^6) | 6 | 0 | .000021 |
| 5 | 0 | 5 | 0 |  |
| 4 | 0 | 4 | 0 |  |
| 3 | 0 | 3 | 0 |  |
| 2 | 0 | 2 | 0 |  |
| 1 | 0 | 1 | 0 |  |