

Match	Prize	Number of blocks eligible for the prize	Chance	Expected Win on \$2
5 + 1	Jackpot	$\binom{5}{5} \binom{64}{0} \binom{1}{1} \binom{25}{0} = 1$	$\frac{1}{292,201,338}$	0.097096454
5 + 0	\$1 million	$\binom{5}{5} \binom{64}{0} \binom{1}{0} \binom{25}{1} = 25$	$\frac{25}{292,201,338}$	0.085557445
4 + 1	\$50000	$\binom{5}{4} \binom{64}{1} \binom{1}{1} \binom{25}{0} = 320$	$\frac{320}{292,201,338}$	0.054756765
4 + 0	\$100	$\binom{5}{4} \binom{64}{1} \binom{1}{0} \binom{25}{1} = 8,000$	$\frac{8000}{292,201,338}$	0.002738382
3 + 1	\$100	$\binom{5}{3} \binom{64}{2} \binom{1}{1} \binom{25}{0} = 20,160$	$\frac{20,160}{292,201,338}$	0.006899352
3 + 0	\$7	$\binom{5}{3} \binom{64}{2} \binom{1}{0} \binom{25}{1} = 504,000$	$\frac{504,000}{292,201,338}$	0.012073866
2 + 1	\$7	$\binom{5}{2} \binom{64}{3} \binom{1}{1} \binom{25}{0} = 416,640$	$\frac{416,640}{292,201,338}$	0.00998106
1 + 1	\$4	$\binom{5}{1} \binom{64}{4} \binom{1}{1} \binom{25}{0} = 3,176,880$	$\frac{3,176,880}{292,201,338}$	0.043488917
0 + 1	\$4	$\binom{5}{0} \binom{64}{5} \binom{1}{1} \binom{25}{0} = 7,624,512$	$\frac{7,624,512}{292,201,338}$	0.104373403
Expected Win from all prizes				0.4169656

Table F.7. Prizes and their chances in the Powerball lottery

The Expected Wins listed in Table F.7 are for the \$2 bet. The Expected Win per \$1 is one-half of the figures. So the approximate overall Expected Win from each \$1 in a bet is one-half of \$0.417, which is 20.8 cents.

F.5.4 Power Play Option

The prize funds for the jackpot and the lower prizes are determined from sales from all states that participate in offering the Power Ball lottery. Some states also offer a Power Play option in the Powerball lottery. Here is a clear explanation from the Maine's state lottery. "For an extra \$1 per play, you can multiply your non-jackpot winnings by 2, 3, 4, or 5 times. A 10X multiplier is also be offered on jackpot levels of \$150,000,000 or less. With the Power Play option, the second prize will always be \$2,000,000! To opt for Power Play, you mark the Power Play box on your play slip or ask the sales associate to add the Power Play option." The jackpot level