

Lotto	Betting volume range where the chance for a sole winner is higher than the chance for any other event
Lotto 6/90 (SuperEnalotto, Italy) $n = 622,614,630$	622,614,630 to 1,245,229,258
Powerball (USA) $n = 292,201,338$	292,201,338 to 584,402,674
MegaMillions (USA) $n = 302,575,350$	302,575,350 to 605,150,688
EuroMillions $n = 139,838,160$	139,838,160 to 279,676,318
Lotto 6/60 (Megasena – Brazil) $n = 50,063,860$	50,063,860 to 100,127,718
Lotto 6/59 (New York and U.K.) $n = 45,057,474$	45,057,474 to 90,114,946
Lotto 6/49 (Canada) $n = 13,983,816$	13,983,816 to 27,967,630

Table 9.3. Betting volumes where the chance for a sole winner is higher than the chance for any other event

9.4 What are your chances of being a sole winner of the jackpot?

In a lotto the chance of a single block to win the jackpot is the ratio of 1 to the total number of blocks possible in the lotto. Table 9.4 lists these chances for some major lotto games.

What are the chances of your single block to become the sole winner in the draw of one of these lottos? A hasty answer would be that they are the figures shown in Table 9.4. Not so!

Consider, again, a draw of the Powerball lottery for which you had entered a single block. Table 9.2 shows that the chance of occurrence of a sole winner of the jackpot is 30.3% at a betting volume equal to one half of 292,201,338. The chance of rollover is 60.65% at that betting volume. The chance of your single block to become the sole winner of the jackpot at that betting volume is

$$\frac{1}{292,201,338} \times \frac{0.303}{1 - 0.6065} = \frac{1}{379475995}$$