

Lotto 6/49 + Complement

The lottery corporation selects 6 winning and 1 complementary number.

$$\text{Jackpot: } \frac{1}{49C_6} \cdot 6C_6 \cdot 43C_0 = \frac{1}{13983816} \approx 7.15 \times 10^{-8}$$

$$\text{Five + C: } \frac{1}{49C_6} \cdot 6C_5 \cdot 1 = \frac{1}{2330636} \approx 4.29 \times 10^{-7}$$

$$\text{Five + } \phi: \frac{1}{49C_6} \cdot 6C_5 \cdot 42C_1 = \frac{3}{166474} \approx 1.80 \times 10^{-5}$$

$$\text{Four: } \frac{1}{49C_6} \cdot 6C_4 \cdot 43C_2 = \frac{645}{665896} \approx 9.69 \times 10^{-4}$$

$$\text{Three: } \frac{1}{49C_6} \cdot 6C_3 \cdot 43C_3 = \frac{8815}{499422} \approx 1.77 \times 10^{-2}$$

$$\text{Two + C: } \frac{1}{49C_6} \cdot 6C_2 \cdot 42C_3 = \frac{1025}{83273} \approx 1.23 \times 10^{-2}$$

$$\text{Two + } \phi: \frac{1}{49C_6} \cdot 6C_2 \cdot 42C_4 = \frac{39975}{332948} \approx 0.12$$