

A lottery consists of 300 lottery tickets. There are 20 tickets with some prize and only two of them with the grand prize. Alex bought 12 tickets. Find the probability that he won at least one grand prize if he won 5 prizes.

$$P(\geq 1 \text{ great} | 5 \text{ prizes are won}) = \frac{C_5^2}{C_{18}^5} = \frac{10}{8568} = 0.012$$