

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16
- 17
- 18
- 19
- 20

$8! \times 4!$

$7! \times \binom{4}{2} \times 4!$

$116 - 8! \times 4! - 7! \times \binom{4}{2} \times 4!$

$4! \times 3! \times 4! \times 2!$

$4! \times 3! \times 4! \times 2! \times 2$

بانتظار = $\frac{4}{4} \times \frac{4}{3} \times \frac{4}{2} = 10$

بی انتظار = $\frac{4}{4} \times \frac{4}{3} \times \frac{3}{2} = 18$

بانتظار = $\frac{4}{4} \times \frac{4}{3} \times \frac{3}{2} = 9$

بی انتظار = $\left\{ \begin{array}{l} \frac{4}{4} \times \frac{3}{3} \times \frac{3}{2} = 18 \\ \frac{4}{4} \times \frac{3}{2} \times \frac{2}{1} = 12 \end{array} \right\} = 30$

بانتظار = $\frac{4}{4} \times \frac{4}{3} \times \frac{2}{1} = 4$

بی انتظار = $\frac{3}{3} \times \frac{3}{2} \times \frac{2}{1} = 18$

بانتظار = $\frac{2}{2} \times \frac{4}{3} \times \frac{3}{2} = 30 - 1 = 29$

بی انتظار = $\left\{ \begin{array}{l} \frac{2}{2} \times \frac{3}{2} \times \frac{2}{1} = 12 \\ \frac{1}{3} \times \frac{3}{2} \times \frac{2}{1} = 3 \end{array} \right\} = 15$

بانتظار = $\frac{1}{4} \times \frac{4}{3} \times \frac{2}{1} = 10$

بی انتظار = $\frac{1}{4} \times \frac{3}{2} \times \frac{2}{1} = 6$

بانتظار = $\frac{1}{4} \times \frac{4}{3} \times \frac{3}{2} = 15$

بی انتظار = $\frac{1}{4} \times \frac{3}{2} \times \frac{3}{2} = 9$

$99 / 44 / 24 / 20 / 40 / 32 / 12 / 54$

بانتظار = $\frac{4}{4} \times \frac{4}{3} = 32$

بی انتظار = $\left\{ \begin{array}{l} \frac{3}{3} \times \frac{3}{2} = 9 \\ \frac{2}{2} \times \frac{3}{2} = 9 \end{array} \right\} = 18$

بانتظار = $\frac{4}{4} \times \frac{4}{3} \times \frac{1}{1} = 20$

بی انتظار = $\frac{4}{4} \times \frac{3}{2} \times \frac{1}{1} = 12$

$\frac{4!}{2! \times 2!}$
 $\frac{4!}{2! \times 2!}$

$111 \rightarrow 1$ $112 = \frac{3!}{2!} = 3$ $113 = \frac{3!}{2!} = 3$ $123 = 6$ $133 = \frac{3!}{2!} = 3$

$223 \rightarrow \frac{3!}{2!} = 3$ 19

$\binom{4}{2} \times \binom{4}{2} = \frac{4 \times 3}{2} \times \frac{4 \times 3}{2} = 9$

$\frac{1!}{2! \times 2!} = \frac{1 \times 7 \times 4 \times 3}{4 \times 2!} = 1$

$4^4 = 256$

$1 \times 1 = 1$
 $2 \times 2 = 4$
 $3 \times 3 = 9$