

تکامل - سطر اول

4! (1)

$(4-1)! \times 5! = 3! \times 5! = 6 \times 120 = 720$ (2)

$\frac{5!}{2} = \frac{120}{2} = 60$ (3)

$\binom{4}{2} \times 5! = \frac{4!}{2!2!} \times 5! = \frac{24}{2 \times 2} \times 120 = 6 \times 120 = 720$ (4)

$\binom{4}{3} \times 5! = \frac{4!}{3!1!} \times 5! = \frac{24}{6 \times 1} \times 120 = 4 \times 120 = 480$ (5)

$\binom{4}{4} \times 5! = \frac{4!}{4!0!} \times 5! = \frac{24}{24 \times 1} \times 120 = 1 \times 120 = 120$ (6)

AM
PM

$\binom{6}{3} \times 4! = 6 \times 4 \times 3 \times 2 \times 1 = 144$ (7)

(cd)(a)(b)(e)(f) = 5! (8)

(cd)(a)(b)(e)(f) = 5! \times 2! (9)

$\binom{4}{2} \times 5! = \frac{4 \times 3 \times 2 \times 1}{2 \times 1} \times 5! = 6 \times 120 = 720$ (10)

08 $(a)(b)(c,d,e)(f) \cdot 4! \times 3!$ (11)

09 $a \overbrace{d \ c} b e f$ (12)

10 $\binom{4}{2} \times 3! \cdot \frac{4 \times 3 \times 2 \times 1}{2 \times 1 \times 1} = 120$

11 $\frac{4!}{2!} \cdot \frac{4 \times 3 \times 2 \times 1}{2 \times 1} = 120$ (12)

12 $\frac{4!}{2! \cdot 2!} \cdot \frac{4 \times 3 \times 2 \times 1}{2 \times 1} = 180$ (13)

13 $4! \times 3!$ (14)

14 $2! \times 2! \times 2!$ (15)

AM
PM



15 $2! \times \binom{4}{2} \times 2! \cdot 2! \times 2! \times 2!$ (16)

16 $10! - (2! \times (2!) \times 2!)$ (17)

17 $2! \times 2! \times 2!$ (18)

18 $4! \times 2!$ (19)