

درخت‌های لانه‌ای

$$q_0 = \frac{4!}{1} = \frac{(4-1)!}{1} \quad (1)$$

$$(4-1)!$$

$$= \frac{4!}{1}$$

$$4! = 24 \quad (1)$$

$$P(4, k) = \frac{4!}{k!} = 24 \quad (2)$$

$$1 \times \binom{4}{k} \times k! = 24 \quad (3)$$

$$1 \times \binom{4}{k} \times \frac{4!}{k!} = 1 \times \frac{4!}{k!} = 24 \quad (4)$$

$$\binom{4}{k} \times k! = 24 \quad (5)$$

$$\boxed{cd} \text{ } abe \neq = 24 \quad (6)$$

$$\boxed{cd} \text{ } abe \neq = 24 \times 1 = 24 \quad (7)$$

$$\boxed{cde} \text{ } | \text{ } ab \neq = \frac{4!}{1!} \times \frac{4!}{1!} = 12 \times 2 = 24 \quad (8)$$

$$\textcircled{c} \text{ } \textcircled{d} \text{ } \textcircled{e} = \frac{4!}{1!} = 24 \quad (9)$$

$$\frac{4!}{1!} = 24$$

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$$\textcircled{c} \text{ } \textcircled{d} \text{ } \textcircled{e} = 24$$

$$\frac{4!}{1! \cdot 1!} = 24 \quad (10)$$

(10)

$$\boxed{\bullet \bullet \bullet \bullet \bullet} \circ \circ \circ \circ \circ = 5! \times 4! = 1440 \dots \quad (13)$$

$$\boxed{\bullet \bullet \bullet \bullet \bullet} \boxed{\circ \circ \circ \circ \circ} = 4! \times 5! \times 5! = 28800 \dots \quad (14)$$

$$X \bullet X \bullet X \bullet X \bullet X \bullet X \bullet X = \binom{4}{5} \times 5! = 120 \dots \quad (15)$$

$$\text{رجزى} = 5! - (\text{مفرد} + \text{متزوج}) = 120 - (5! \times 4! + \binom{4}{5} \times 5!) \quad (16)$$

$$28800 = 4! \times 5! \times 5! \quad (17)$$

$$5! \times 4! = 2880 \quad (18)$$