تمرين ٥٦ ص

١) $n! \to 6! = \boxed{720}$

٢) $(n-1)! \to 5! = \boxed{120}$

٣) $\frac{(n-1)!}{2} = \frac{5!}{2} = \frac{120}{2} = \boxed{60}$

٤) $\binom{6}{3} = \frac{6 \times 5 \times 4}{3 \times 2} = 20$

$20 \times 3! = \boxed{120}$

٥) $\binom{6}{3} = 20$ $\quad 20 \times (6-1)! = \boxed{2400}$

٦) $\binom{n}{2} = 20$ $\quad 20 \times \frac{2!}{2} = \boxed{20}$

٧) $(a)(b)(c,d)(e)(f)$ $\quad 5! = \boxed{120}$

٨) $\binom{3}{2} = 3$ $\quad 3 \times 3! = \boxed{18}$

٩) $3! \times 4! = \boxed{144}$

١٠) $\frac{6!}{2!} = \boxed{360}$

١١) $4! \times 4! = \boxed{576}$

١٢) $\frac{5!}{3!} = \frac{120}{6} = \boxed{20}$

١٣) $\frac{5!}{3!} = \boxed{20}$

١٤) $\frac{6!}{2! \times 4!} = \boxed{15}$

١٥) $5! \times 4! = 120 \times 24 = 2880$

١٦) $3! \times 3! \times 3! = 6 \times 6 \times 6 = 216$

١٧) $(3! \times 5! \times 2!) + (4! \times 5! \times 3!) = \boxed{(3 \times 2) \times 5! \times 3!}$

١٨) $10! - 6! \times 3! - 5! \times 5!$

١٩) $2 \times 5! \times 5!$

٢٠) $4! \times 3!$