

$$① nC_r = \frac{n!}{(n-r)! r!}$$

$$② nC_p = nC_q$$

✓
✓ Then $p = q$

$$\text{or } p + q = n$$

$$③ nC_0 = 1$$

$$④ nC_1 = n$$

Ex 6.4

$$1. nC_8 = nC_2$$

$$n = 8 + 2 = 10.$$

$$nC_2 = 10C_2$$

$$= \frac{10!}{(10-2)! 2!}$$

$$= \frac{10!}{8! 2!}$$

$$= \frac{10 \times 9 \times \cancel{8!}}{\cancel{8!} \times 2!}$$

$$= 5 \times 9 = 45.$$