TOPIC 3: Combination Formula

$$_nC_r = \frac{n!}{r!(n-r)!}$$

where, $_nC_r$ is the number of combination

n is total objects in the set

r number of choosing objects from the set

Example: A teacher asked her students to choose 5 designs of flower out of 8 designs presented. How many different choices that the students can give to their teacher?

Solution: n=8 r=5

$$_nC_r = \frac{n!}{r!(n-r)!}$$

$$= \frac{8!}{5!(8-5)!}$$

$$= \frac{8!}{5!\ 3!}$$

$$= \frac{(8)(7)(6)5!}{5!\ (3)(2)(1)}$$

=56 possible ways