

Answer on Question#39799 – Math - Combinatorics | Number Theory

a fraternity is to elect a president and treasurer from a group of 40 members. How many was can those two officers be elected?

Solution:

The number of ways to elect president from 40 members:

$$C_{40}^1 = 40$$

The number of ways to elect treasurer from 39 members (because the president has been already elected):

$$C_{39}^1 = 39$$

The possible combinations:

$$n = 40 \cdot 39 = 1560$$

Answer: two officers can be elected with 1560 different ways.