

PERMUTATIONS AND COMBINATIONS Guided Notes

1. If a **Task1** can be done in n_1 ways, and a **Task2** can be done in n_2 ways, ..., and a **Task k** can be done in n_k ways, then all of these tasks can be done in

_____.

2. A permutation is the choice of _____ things from a set of n things without replacement and where the _____ matters.

Mathematically, it is represented as _____.

$n!$ is represented by _____.

$${}_0^n P = \underline{\hspace{2cm}}.$$

$${}_3^5 P = \underline{\hspace{2cm}}.$$

3. A combination is the choice of _____ things from a set of n things without replacement and where the _____ does not matter.

Mathematically, it is represented as _____.

$${}_0^n C = \underline{\hspace{2cm}}.$$

$${}_3^5 C = \underline{\hspace{2cm}}.$$

4. The value of ${}_0^n P = \underline{\hspace{2cm}}.$