NAME _____ QUARTER _____

GRADE & SECTION _____ DATE _____

Activity: Combination

COMBINATIONS An arrangement or listing in which order is not important is called a **combination**. For example, if you are choosing 2 salad ingredients from a list of 10, the order in which you choose the ingredients does not matter.

Combinations of *n* Objects Taken *r* at a Time

The number of combinations of r objects taken from a group of n distinct objects is denoted by ${}_nC_r$ and is given by this formula:

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

Set up the formula then find the combinations of n objects taken r at time.

1. How many different committees of 4 people can be formed from a pool of 7 people?

This is the combination of ☐ objects taken ☐ at a time.

That will be $\square C_{\square} = \frac{\square!}{(\square - \square)! \cdot \square!}$

Therefore, there are _____ different committees of 4 people that can be formed from a pool of 7 people.

2. In how many ways can Tony choose three books from a list of 8 books?

This is the combination of ☐ objects taken ☐ at a time.

That will be $\square C_{\square} = \frac{\square!}{(\square - \square)! \cdot \square!}$

Therefore, there are _____ ways that Tony can choose three books from a list of 8 books.

3. In how many ways can be a coach select the first five from 12 players?

This is the combination of ☐ objects taken ☐ at a time.

That will be $\square C_{\square} = \frac{\square!}{(\square - \square)! \cdot \square!}$

Therefore, there are _____ ways that a coach can select the first five from 12 players.

How many attempts? ___.
How well did you do?

 ☐ Need help!  ☐ Just OK!  ☐ Splendid

I HAVE TO...

_____

_____

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