

NAME: \_\_\_\_\_

*P.I. A2.S.9: Differentiate between situations requiring permutations and those requiring combinations*

*P.I. A2.S.11: Calculate the number of possible combinations ( ${}_nC_r$ ) of  $n$  items taken  $r$  at a time*

1. Explain the difference between a combination and a permutation.

2. Make up a combination problem that has the answer 792.

A combination is a counting of the number of ways a selection can be made. The order of the selection does not affect the counting. A permutation is a counting of the number of arrangements of a selection  
[1] can be made. The order of the selection is important.

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Answers may vary. Sample: There are 12 members of the tennis team. In how many different ways can 5  
[2] be selected for a special tournament?

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