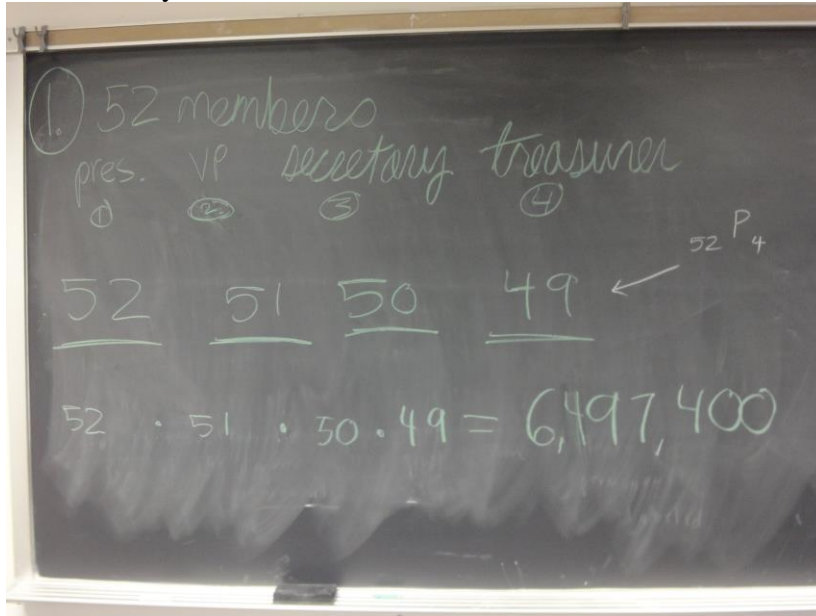


MATH 126

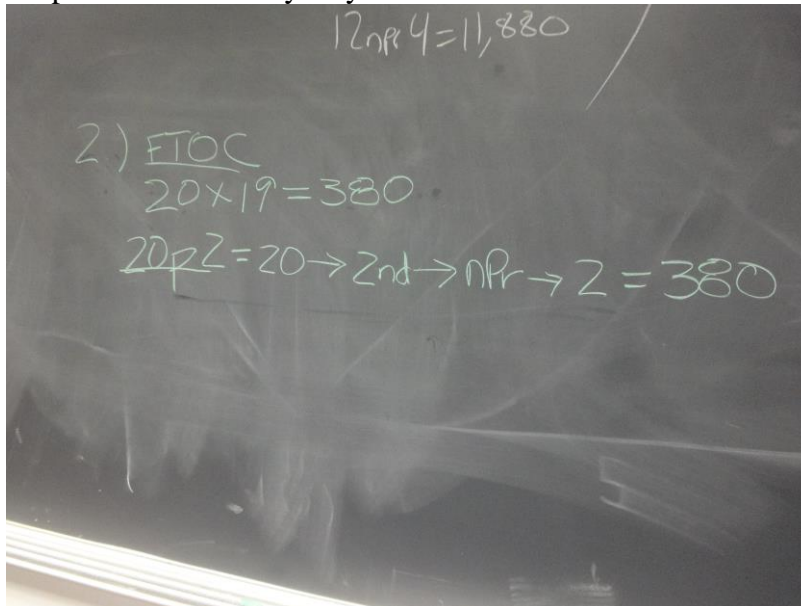
Permutations (Answers)

Note!!! If you know more than one way to solve these, then show both methods of solution.

1. 52 members of a labor union choose a President, VP, Secretary, and Treasurer. In how many different ways can this be done? Note: No member can hold two offices.

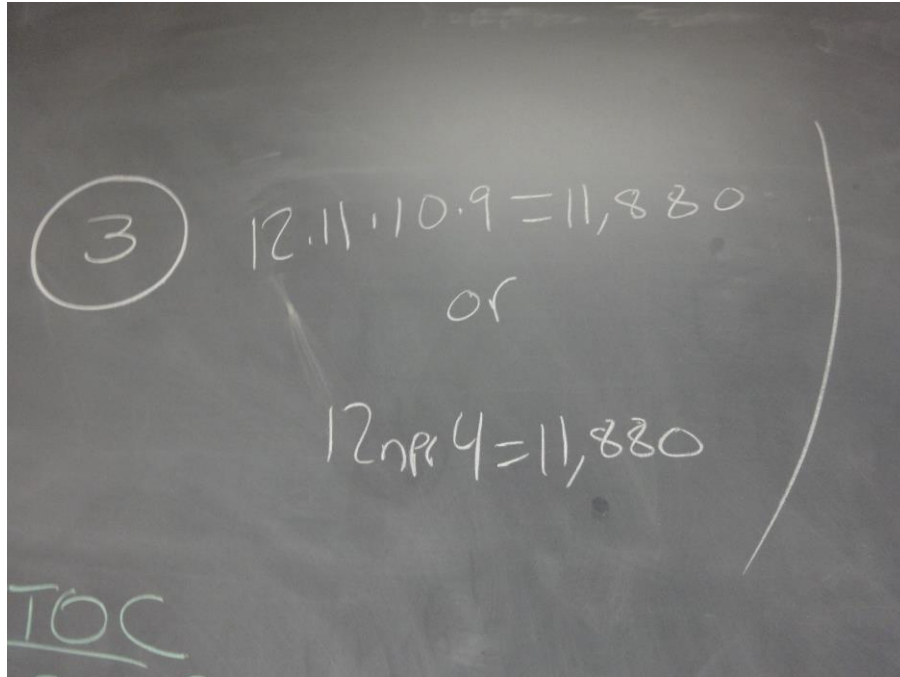


2. Twenty paintings have been entered in an art show and the judges must choose 1st prize and 2nd prize. In how many ways can this be done?



(over)

3. In how many ways can 12 basketball teams be ranked 1st, 2nd, 3rd, and 4th by a panel of coaches?



4. How many six-letter passwords are there that use only lowercase letters with no letter repeated? What if repeats are allowed?

