Combinatorics, Fall 2016, Quiz 9

Name _____

Please hand only only clearly written work, not scratch paper. Clearly mark your final answers for each problem. Full credit will only be given on problems for which your work is clearly shown, and your answers are justified. The only allowable materials for this quiz are paper, pens and pencils. No notes, textbooks or calculators will be allowed.

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1. Use the principle of inclusion-exclusion to count the number of ways to pass out 8 distinguishable pieces of candy to 10 children so that no child gets more than 3 pieces. You don't need to simplify your answer.

2. If 8 pieces of distinguishable candy is handed out to 10 children randomly, what is the probability that no child gets more than 3 pieces?

3. Use the principle of inclusion-exclusion to count the number of ways to pass out 8 indistinguishable pieces of candy to 10 children so that no child gets more than 3 pieces. You don't need to simplify your answer.

4. If 8 pieces of indistinguishable candy is handed out to 10 children randomly, what is the probability that no child gets more than 3 pieces? (there is an easy way, and a hard way to do this)

Honor Code

I will be academically honest in all of my academic work and will not tolerate academic dishonesty of others

Signature _____