Quiz 3

Math 105

Summer 2020

You have 30 minutes to complete this quiz **(this includes the time it takes to scan and upload it)**. You may not use a calculator, your notes, the textbook, or any other resources. Write your solutions on a separate sheet of paper, and when you're finished, first check your work if there is time remaining, then scan the quiz and upload it to Canvas. If you have a question, don't hesitate to ask — I just may not be able to answer it.

1. (8 points) In a survey of 100 people, 11 regularly chewed gum and 34 were vegetarian. If 65 neither chewed gum regularly nor were vegetarian, how many people chewed gum regularly but were not vegetarian? Show all your work.

2. (8 points) In one room, you have 5 red blocks that you want to arrange in a row, and in another, you have 3 blue blocks that you also want to arrange in a row. You cannot move blocks between rooms. How many different arrangements of all 8 blocks are possible? Explain your reasoning.

3. (8 points) You have a bag of ten different marbles. If you pull out three at random and put them in a smaller bag (so that the order in which you pulled them out doesn't matter), how many possibilities are there for the smaller bag? Explain your reasoning.