

14.1 Intro to Probability/Counting Principle
Pre-AP Geometry

Name _____
Period _____ Date _____

Must show all work for full credit!! Leave answers as simplified fractions.

1. Evan has white socks and blue socks in his drawer. If he picks a pair at random from the 14 pairs of socks in the drawer, the probability of choosing a white pair is $\frac{2}{7}$. How many blue pairs of socks are in the drawer?

2. A pencil box contains 5 red, 4 blue, and 6 green pencils. If a pencil is chosen at random, what is the probability that it will not be blue?

3. A class contains 12 juniors and 13 seniors as described below:

	Juniors	Seniors
Male	7	4
Female	5	9

If one student is chosen at random, what is the probability that the student will be a female senior?

4. In a statistics class with 12 men and 14 women, 5 of the men and 8 of the women are also taking a biology class. If one student is chosen at random from the statistics class, what is the probability of selecting a man taking biology?

5. There are 5 students scheduled to read their essays aloud in an English class one day. The teacher will randomly choose the order of the students. In how many different orders can the students read their essays?

6. A restaurant offers a special price for customers who order a sandwich, soup, and a drink for lunch. The diagram shows the restaurant's menu. How many different lunches are possible?

Lunch Menu		
Sandwiches	Soup	Drinks
Cheese	Minestrone	Cola
Chicken	Chicken Noodle	Tea
Ham and Egg	Vegetable	Coffee
Turkey Club		

7. A website requires users to make up a password that consists of three letters (A to Z) followed by three numbers (0 to 9). Neither letters nor digits can be repeated. How many different passwords are possible?

8. Letter blocks are arranged in a row from A to H, as shown. How many different arrangements in a row could you make with blocks?



9. A photographer arranges 12 members of a soccer team in a row to take a group picture. How many different arrangements are possible?