

AP Stats

Chap 13 Handout #1

Name _____ Pd _____

Place your answers on / in the spaces provided.

History Exam.

1. Five multiple choice questions, each with four possible answers, appear on your history exam. What is the probability that if you guess, you

- a. get none of the questions correct? 1a. _____
- b. get all of the questions correct? b. _____
- c. get at least one of the questions wrong? c. _____
- d. get your first incorrect answer on the fourth question? d. _____

Peanut Butter M&Ms.

The MasterFoods company manufactures bags of Peanut Butter M&Ms. They report that they make 10% each brown and red candies, and 20% each yellow, blue, and orange candies. The rest of the candies are green.

2. If you pick a Peanut Butter M&M at random, what is the probability that

- a. it is green? 2a. _____
- b. it is a primary color? b. _____
- c. it is not orange? c. _____

3. If you pick four M&Ms in a row, what is the probability that

- a. they are all blue? 3a. _____
- b. none are green? b. _____
- c. at least one is red? c. _____
- d. the fourth one is the first one that is brown? d. _____

4. After picking ten M&Ms in a row, you still have not picked a red one. A friend says that you should have a better chance of getting a red candy on your next pick since you have yet to see one. Comment on your friend's statement.

Clothing Store.

A new clothing store advertises that during its Grand Opening every customer that enters the store can throw a bouncy rubber cube onto a table that has squares labeled with discounted amounts. The table is divided into ten regions. Five regions award a 10% discount, two regions award a 20% discount, two regions award a 30% discount, and the remaining region awards a 50% discount.

10	30	10	30	10
20	10	50	10	20

SHOW all your work for the following!!!

5. What is the probability that a customer gets more than a 20% discount? 5. _____

6. What is the probability that a customer gets less than a 20% discount? 6. _____

7. What is the probability that the first two customers both get a 50% discount? 7. _____

8. What is the probability that none of the first three customers gets more than a 30% discount? 8. _____

9. What is the probability that the first customer to win a 30% discount is the sixth customer that enters the store? 9. _____

10. What is the probability that there is at least one customer to win a 50% discount among the first five customers that enter the store? 10. _____

11. As you enter the store you watch the four people in front of you all win 50% discounts. The store managers tells you how lucky you are to be throwing the cube while it is on a hot streak, but the friend with you says you're unlucky because the streak can't continue. Comment on their statements.