

Show work on your own paper. Save this assignment for reference.  
Give answers as fractions in simplest form unless otherwise requested.

- Plastic chips numbered 1-10 are placed in a bag. Find each probability.
  - choosing an 8 or choosing a number less than 5
  - choosing a number greater than 5 or choosing an odd number
  - choosing an 2 even numbers, one at a time, with replacement
  - choosing an 8 and choosing a number greater than 7, one at a time, without replacement

2. In a survey, 3510 drivers were asked if they were color-blind (CB). The results of this survey are shown in the table.

- What is the probability that a male driver was color-blind?
- What is the probability that a driver was male or color blind?

	Male	Female	Total
Not CB	1853	1554	3407
CB	97	6	103

3. A high school has 98 teachers. Of the 42 female teachers, 8 teach math. One-seventh of all of the teachers teach math.

- What is the probability that a teacher is a woman or teaches math?
- What is the probability that a teacher is a man or does not teach math?

4. The probability that it will rain in Seattle today is 40% and the probability that it will rain in Seattle tomorrow is 30%. What is the probability that it rains today and does not rain tomorrow?

Give the answer as a percent.

5. A vending machine offers 8 different drinks. Six students purchased a drink from the vending machine. Find the probability, to the nearest hundredth, that at least two students purchased the same drink. (hint: use the complement)

6. Clarice has 7 new DVDs: 5 are dramas and 2 are comedies. If she randomly selects 3 DVDs to bring on vacation, what is the probability that she selects 2 dramas and 1 comedy?

Answers:

1. a.  $\frac{1}{10}$     b.  $\frac{4}{5}$     c.  $\frac{1}{4}$     d.  $\frac{1}{50}$     2. a.  $\frac{97}{3510}$     b.  $\frac{1956}{3510}$   
 3.a.  $\frac{24}{49}$     b.  $\frac{32}{49}$     4. 28%    5. 0.92    6.  $\frac{4}{7}$