

Review of Statistics

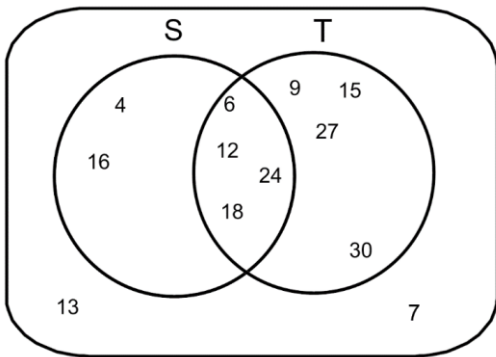
Name _____

1. Let A, B and, C be three sets such that;

Set A = { A, B, F, G, H, I, O}, set B = {A, E, I, O, U, Y, T, S}, and Set C = { Q, W, E, R, T,Y}

- Find:**
- a. $A \cap B$
 - b. $A \cup C$
 - c. $(A \cap C) \cup B$
 - d. A^c
 - e. $\sim(B \cap C)$

2. Find the following.



- a) $S \cap T$
- b) $T \cup S$
- c) $S^c \cap S$
- d) $T^c \cup S$
- e) $(S \cap T)^c$

3. Ms. DenBesten has a bin of candy. In that bin she has 24 Hershey’s kisses, 45 Jolly Ranchers, and 31 Dum Dum’s. Find the following:
- a) What is the probability of selecting a Dum Dum and then selecting a Jolly Rancher with replacement?
 - b) What is the probability of selecting a non-chocolate and then selecting a Jolly Rancher with replacement?
 - c) What is the probability of selecting a chocolate and then selecting a Hershey’s kiss w/o replacement?
 - d) What is the probability of selecting a Dom Dom and then selecting a Jolly Rancher?
4. The probability that Trent buys Jordan’s and gets a mark on them within the first week is $1/7$. The Probability that he buys Jordan’s is $1/5$. Find the probability that Trent gets a mark on his shoes within the first week, given that he bought Jordan’s.
5. A new superman MasterCard has been issued to 2000 customers. Of these customers, 1500 hold a Visa card, 500 hold an American Express card and 40 hold a Visa card and an American Express card. Find the probability that a customer chosen at random holds a Visa card, given that the customer holds an American Express card.
6. A new bag of golf tees contains 5 red tees, 13 orange tees, 7 green tees and 15 blue tees. You empty the tees into your golf bag. What is the probability of pulling a green or orange one?

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7. At a school of only 300 students there are 132 KIK users; of the KIK users 74 are female and of the non-KIK users 96 are male.
- a) $P(\text{a KIK user or a female})$
 - b) $P(\text{a non-KIK user or female})$
 - c) $P(\text{a KIK user or Male})$

8. Below is a partial list of the results of a classroom Poll. Complete the chart.

Study for the Test

	yes	no	Maybe	Total
Boys	2	2		10
Girls			7	
Total		7		30

- a) Who was more likely to study for the test girls or boys? Why?
- b) Is it more likely for someone to study for the test or not study?
- c) What percent of students studied for the test, given that they were girls?
- d) What percent of students were boys, given that that they said maybe?
- e) Write a frequency table.

- f) If we were talking about all of geometry, which has 300 students. How many would study for the test?
- g) How many girls wouldn't have studied?

Decided if each of the following are independent(Mutually Exclusive) or Dependent(Not M.E.) events.

- a. Landing on heads after tossing a coin and rolling a 5 on a single 6-sided die.
- b. Choosing a 3 from a deck of cards, replacing it, and then choosing an ace as the second card.
- c. Spinning a spinner twice.
- d. Pick a marble from 5 marbles, don't put it back then pick another marble.
- e. Having a car and having a laptop.
- f. Choosing a king and choosing an Ace out of a deck of cards.
- g. Flipping a coin and getting heads and tails