1) What is the sample space for the experiment that we roll two dice.

For each of the following, write out the subset that corresponds to the event and then find the probability of that event.

a) The sum is 3

b) The sum is 7

c) The sum is odd

d) The sum is 3 or 7

e) At least one of the die has an even number.

f) Now suppose that you roll 5 dice, How many elements will be in the sample space.

g) What is the probability that at least one of the dice will show a 3?

Use a Venn Diagram and the given information to determine the number of elements in the indicated region.

1) In a survey of 450 students at Southern States University (SSU) there are 184 who compost veggies in the kitchen, 238 are recycle, and 123 both compost and recycle. Using C for the set of students who compost and R for the set of students who recycle

a) Draw the Venn diagram corresponding to this situation.

b) Find the number of students that compost or recycle. Write out the addition rule and the values that you substituted into the formula to use it.

e) Use the given information to make a contingancy table. Circle the entry corresponding to students who compost but do not recycle.

f) What is the probability of randomly selecting a student who composts but does not recycle?

g) What is the probability that someone recycles given that they compost?

h) If three students are selected what is the probability that they all recycle?

without replacement

with replacement

Can the Cumbersome calculations Rule be used for this example? Explain.