

1. A large container is holding economics and a math books. Two books are chosen at random without replacement. The probability of selecting an economics book on the first draw is 0.62. The probability of selecting a math book is 0.38 The probability of selecting an economics book and then a math book is 0.42. What is probability selecting a math book on the second draw, given that the first book was economics?

2. In bag are chocolate chip cookies and Oreos. Two items are chosen at random from the bag, without replacement. The probability of selecting a chocolate chips cookie and then an Oreo is 0.47. The probability of selecting a chocolate chip cookie on the first draw is 0.71. The probability of selecting an Oreo on the first draw is 0.29 What is probability selecting an Oreo on the second draw given that the first cookie drawn was a chocolate chip?

3. In certain population, the probability that a man lives for at least seventy five years is 0.75. The probability that he will live for at least eighty-five years is 0.65. If a man is seventy-five years old, what is the conditional probability he will survive to eighty-five years?

4. In a school, the probability that a student takes environmental science and geography is 0.25. The probability that a student takes environmental science is 0.72. What is probability that a student takes geography given that the student is taking environmental science?

5. A jar contains black and white marbles. Two marbles are chosen without replacement. The probability of selecting a black marble and then a white marble is 0.34, and the probability of selecting a black marble on the first draw is 0.47. What is the probability of selecting a white marble on the second draw, given that the first marble drawn was black?

6. At a middle school, 0.18 of all students play football and basketball and 0.32 of all students play football. What is the probability that a student plays basketball given that the student plays football?

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

Study for the Test

	yes	no	Maybe	Total
Boys	4	5		15
Girls			9	
Total		12		32

- 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) Create a relative frequency table.

- f) If we were talking about all of geometry, which has 300 students. How many would study for the test?

- g) If there were 525 students in geometry, how many would be girls or study?

- h) How many people study and be girls if 610 people were asked?

2. Below is a partial list of the results of a classroom Poll on what device students prefer to use when consuming media. Complete the chart.

Study for the Test

	Boys	Girls	Total
Computer	6	8	
Smartphone			18
Total		17	

- a) Which gender is more likely to prefers the use of smartphones more, based on the table data?
- b) Which type of device is more likely to be used, explain your reasoning.
- c) What percent of students prefer their smart phone, given that they were girls?
- d) What percent of students were boys, given that that they prefer using a computer?
- e) Create a relative frequency table.

- f) If we were talking about the entire school, which has about 2500 students. How many would prefer a computer?
- g) If only the freshmen class of 678 students was asked, how many would be girls or prefer a smartphone?
- h) How many people would prefer a computer and be boys, if 1137 students were asked?