Conditional Probability - Independent Practice Worksheet

Complete all the problems.

The question, "Do you play football?" was asked of 110 students. Results are shown in the table.

	Play football	Don't play football	Total
Boys	42	33	75
Girls	12	23	35
Total	54	56	110

1. What is the probability of randomly selecting an individual who is a boy and who plays football? This is just a joint probability.

2. What is the probability of a randomly selecting an individual that is a boy?

3. What is the probability of a randomly selecting an individual that plays football?

4. If you randomly select a boy, what is the probability they play football?

5. If you randomly select a football player, what is the probability that they are a boy?

6. 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?

7. You roll two dice. The first die shows a TWO and the other die rolls under the table and you cannot see it. Now, what is the probability that both die show TWO?

8. In certain population, the probability that a men lives to at least seventy-five years long is 0.75. The probability that he will live to 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?

Name _____   Date _____

9. In a bag are an economics and a math book. Two books are chosen at random without replacement. The probability of selecting an economics book and then a math book is 0.42. The probability of selecting an economics book on the first draw is 0.62. What is probability selecting a math book on the second draw? Given that the first book was economic.

10. In a box are a carton of dairy milk and Boonville chocolates. Two items are chosen at random from the box, without replacement. The probability of selecting dairy milk and then a Boonville chocolate is 0.47. The probability of selecting dairy milk on the first draw is 0.71. What is probability selecting a Boonville chocolate on the second draw. Given that the first chocolate drawn was dairy milk?