Statistics Name: _____

3.2—Probability Practice: Conditional Events and "And"

To check if events are independent, compare the two probabilities

To find the probability of two or more events in a row, use the formula

1. A math teacher gave her class two tests. 25% of the class passed both tests and 42% of the class passed the first test. What percent of those who passed the first test also passed the second test?

2. The probability that a student gets an A in stats class is 78%. Of those students, 62% had five absences or less. Find the probability that a student gets an A in stats and has 5 or less absences.

The contingency table below shows the number of animals at a local animal shelter. Use the table to answer questions 4 – 8.

	Dog	Cat	Total
Male	42	10	52
Female	9	39	48
Total	51	49	100

4. Find the probability of an animal being a dog.

5. Find the probability that an animal is a cat, given that it is female.

6. Find the probability of an animal being a dog and male.

7. Are the events "being a cat" and "being a male" independent or dependent? Show your work.

The contingency table below shows the outcome of eating burritos and whether or not a person had stomach issues. Use the table to answer questions 8 – 14.

	Got GI illness	Did not get GI illness	Totals
Ate burritos	8	5	13
Did not eat burritos	6	33	39
Totals	14	38	52

8. Find the probability that a person ate burritos.

9. Find the probability that a person had a GI illness, given that they ate burritos.

10. Find the probability that a person ate burritos, given that they did not have a GI illness.

11. Find the probability that a person ate burritos and had a GI illness.

12. Find the probability that a person did not have a GI illness and did not eat burritos.

13. Are the events "eating burritos" and "having GI illness" independent or dependent? Show your work.

14. Are the events "not eating burritos" and "not having a GI illness" independent or dependent? Show your work.