Lesson 6:
Conditional Probability

SEARCH

RESOURCES

CONCEPTS

6. Quiz: Medical Example 5
7. Quiz: Medical Example 6
8. Quiz: Medical Example 7
9. Quiz: Medical Example 8
10. Total Probability
11. Quiz: Two Coins 1
12. Quiz: Two Coins 2
13. Quiz: Two Coins 3
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15. Summary
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Mentor Help
Ask a mentor on our Q&A platform

Peer Chat 4
Chat with peers and alumni

Text: Summary

Conditional Probability

In this lesson you learned about conditional probability. Often events are not ir
coin flips and dice rolling. Instead, the outcome of one event depends on an ea

For example, the probability of obtaining a positive test result is dependent on
have a particular condition. If you have a condition, it is more likely that a test r
formulate conditional probabilities for any two events in the following way:

$$P(A|B) = \frac{P(A \cap B)}{P(B)}$$

In this case, we could have this as:

$$P(positive|disease) = \frac{P(\text{positive} \cap \text{disease})}{P(disease)}$$

where $|$ represents "given" and $\cap$ represents "and".

Looking Ahead

You will get more practice with conditional probability using Bayes rule in the le
comfortable with the examples here, the next lesson should be a breeze. And i
uncomfortable with these ideas, the next lesson should be good practice to rei
with some more examples.