Probability

Example

Prof. Dr. Mostafa Elhosseini

https://youtube.com/drmelhosseini

Example

- A target on a **test firing range** consists of a **bull's-eye** with **two concentric rings around it**. A projectile is fired at the target. The probability that it **hits the bull's-eye is 0.10**, the probability that it **hits the inner ring is 0.25**, and the probability that it **hits the outer ring is 0.45**. What is the probability that the projectile hits the target? What is the probability that it misses the target?

Example

- Hitting the bull's-eye, hitting the inner ring, and hitting the outer ring are mutually exclusive events, since it is impossible for more than one of these events to occur.
- Therefore, using Axiom 3
- P(hits target) = P(bull's-eye) + P(inner ring) + P(outer ring)
- = 0.10 + 0.25 + 0.45 = 0.80
- P(misses target) = 1 – P(hits target)
- = 1 – 0.80 = 0.20

References

- Understanding Boxplots https://towardsdatascience.com/understanding-boxplots-5e2df7bcbd51
- What does a box plot tell you? https://www.simplypsychology.org/boxplots.html
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- Khan Academy

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