

Daily Agenda

Learning Target: I can calculate the probability of at least 1.

<p style="color: blue;">Homework</p> <p>10.2 Day 3 WS</p>	<p style="color: red;">Assessments</p> <p>10.1-10.2 Quiz 4/28 Unit 10 A Test - 5/5</p>
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Do not let what you cannot do interfere with what you can do.
-John Wooden

Nov 15-8:24 PM

10.2 Probability of Multiple Events

What is the probability of rolling a 1 on a die?

$$\frac{1}{6}$$

What is the probability of not rolling a 1 on a die?

$$\frac{5}{6}$$

Feb 9-11:33 AM

10.2 Probability of Multiple Events

Complement of an Event

The complement of event A is the set of all possible outcomes that are not A.

$$P(A) + P(\text{not } A) = 1$$

Feb 9-11:33 AM

10.2 Probability of Multiple Events

Probability of At Least One

Probability that event will happen at least once in multiple trials.

$$P(\text{at least 1}) = 1 - P(\text{None})$$

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Example

You toss a coin 3 times. What is the probability that you get at least one tail?

$$P(\text{no tails}) = \left(\frac{1}{2}\right) \left(\frac{1}{2}\right) \left(\frac{1}{2}\right) = \frac{1}{8}$$

$$P(\text{at least 1 tail}) = 1 - \frac{1}{8} = \frac{7}{8}$$

HHH	THH
HHT	THT
HTH	TTH
HTT	TTT

Mar 22-9:29 PM

Example

What is the probability that in 3 rolls, you roll at least one 2?

$$P(\text{not 2}) = \left(\frac{5}{6}\right) \left(\frac{5}{6}\right) \left(\frac{5}{6}\right) = \frac{125}{216}$$

$$P(\text{at least one 2}) = 1 - \frac{125}{216} = \frac{91}{216}$$

Mar 22-9:29 PM