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| **Comparing Theoretical and Experimental Probabilities of Two Independent Events** | | | |
| Determines the theoretical probability of two independent events      The theoretical probability of rolling  5 is .  The theoretical probability of tossing  heads is .  So, the theoretical probability of rolling 5 and tossing heads is:  × = , or 0.08, or 8.% | Explains how to determine the experimental probability of two independent events  I would conduct the experiment many times, then divide the number of favourable outcomes by the number of times I conducted the experiment. | Uses theoretical probabilities to predict the outcomes of an experiment  The theoretical probability of rolling  5 on a number cube and getting  a head on a coin toss is .  In an experiment of 100 trials,  I would expect this outcome to occur  × 100 = 8.333… times, or about  8 times. | Explains how fairness in an experiment or game affects the probabilities  An unfair coin or number cube affects the experimental probability, but not the theoretical probability.  A set of outcomes where some are more likely than others affects the fairness of a game. |
| **Observations/Documentation** | | | |
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