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| **Probability of Multiple Dependent Events** |
| Calculates theoretical probability for 3 dependent eventsOne tile is taken from the bag, then another tile is taken, then the third tile is taken.Sample space:R, B, GR, G, BB, G, RB, R, GG, B, RG, R, BFor the probability that the tiles are removed in the order red, blue, green, there is 1 favourable outcome and 6 possible outcomes. So, the theoretical probability of red, blue, green is: $\frac{1}{6}$ $≈ $0.17, or about 17% | Calculates experimental probability for 3 dependent eventsOne tile is taken from the bag, then another tile is taken, then the third tile is taken.The results for 10 trials:R, G, B B, R, GG, B, R R, G, BR, B, G R, B, GG, B, R G, B, RG, R, B R, G, B The outcome red, brown, green occurred 2 times, and the experiment was conducted 10 times, so the experimental probability of red, blue, green is: $\frac{2}{10}$ = 0.2 = 20% | Compares probabilities for 3 dependent eventsThe theoretical probability of red,blue, green is: $\frac{1}{6}$ $≈ $0.17, or about 17%The experimental probability of red, blue, green is: $\frac{2}{10}$ = 0.2, or 20%The probabilities are close in value. The experimental probability is slightly greater than the theoretical probability. | Understands how the experimental probabilities are affected by many trials For 100s of trials of an experiment, the experimental probability of an outcome may closely approach its theoretical probability. |

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| **Observations/Documentation** |
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