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| **Investigating Relative Frequency through Experiments** |
| Lists all possible outcomes for an experiment with equally likely outcomes.These counters are in a bag.A group of red blue yellow and green circles  Description automatically generated“I could get a red, green, yellow, or blue counter.” | Determines expected likelihood of an event.A group of red blue yellow and green circles  Description automatically generated“Red: most likely, ; green: unlikely,  or ; yellow: unlikely,  or ; blue: least likely: ” | Uses the possible outcomes of an experiment to predict the likelihood of an event.A group of red blue yellow and green circles  Description automatically generated“There are 12 counters and 7 are red. 12 × 4 = 48, which is close to 50. So, in 50 trials I think I will get a red counter about 7 × 4, or 28 times.” | Conducts experiment and organizes collected data.“I conducted the experiment. In 50 trials, I got a red counter 35 times.”  |
| **Observations/Documentation** |
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| **Investigating Relative Frequency through Experiments (cont’d)** |
| Uses outcomes of experiment to determine relative frequencies.“I got a red counter 35 times in 50 trials. So, the relative frequency of getting red is , or , or 0.7, or 70%.” | Realizes that relative frequencies vary among sets of collected data. “The relative frequency of getting red was different for other pairs of students. I got , but others got , , and .”  | Understands that with more trials of an experiment, the closer the actual results may be to expected likelihoods.“When I conducted more trials, I noticed that the results got closer to the expected likelihoods, but they still didn’t match exactly.” | Flexibly performs experiments, analyzes results, and compares and justifies predictions.A close up of a card  Description automatically generated“The likelihood of drawing a 6 or a 7 is . So, when I conduct the experiment 60 times, I would expect to get a 6 or 7 about 50 times. I got 6 or 7 forty-four times. I have to do more trials.” |
| **Observations/Documentation** |
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