# Activity 1 Assessment
Describing the Likelihood of Events

Investigating Relative Frequency through Experiments

Lists all possible outcomes for an experiment with equally likely outcomes.	Determines expected likelihood of an event.	Uses the possible outcomes of an experiment to predict the likelihood of an event.	Conducts experiment and organizes collected data.
These counters are in a bag.			"I conducted the experiment. In 50 trials, I got a red counter 35 times."
"I could get a red, green, yellow, or blue counter."	"Red: most likely, $\frac{7}{12}$; green: unlikely, $\frac{2}{12}$ or $\frac{1}{6}$; yellow: unlikely, $\frac{2}{12}$ or $\frac{1}{6}$; blue: least likely: $\frac{1}{12}$"	"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."	
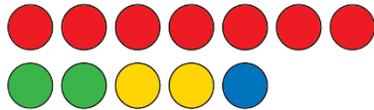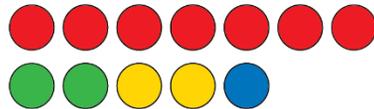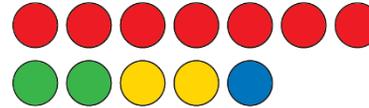
Observations/Documentation

Activity 1 Assessment
Describing the Likelihood of Events

Investigating Relative Frequency through Experiments (cont'd)

Uses outcomes of experiment to determine relative frequencies.	Realizes that relative frequencies vary among sets of collected data.	Understands that with more trials of an experiment, the closer the actual results may be to expected likelihoods.	Flexibly performs experiments, analyzes results, and compares and justifies predictions.
"I got a red counter 35 times in 50 trials. So, the relative frequency of getting red is $\frac{35}{50}$, or $\frac{70}{100}$, or 0.7, or 70%."	"The relative frequency of getting red was different for other pairs of students. I got $\frac{35}{50}$, but others got $\frac{29}{50}, \frac{33}{50}$, and $\frac{37}{50}$."	"When I conducted more trials, I noticed that the results got closer to the expected likelihoods, but they still didn't match exactly."	"The likelihood of drawing a 6 or a 7 is $\frac{5}{6}$. 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

Mathology 6 Alberta
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