

Activity 14 Assessment

Using Code to Simulate Independent Events

Using Code to Simulate Tossing Two Coins

Interprets provided code that uses random numbers to simulate tossing two fair coins

```

define randomCoinToss
  set firstCoin to pick random 0 to 1
  broadcast 1stCoin
  set secondCoin to pick random 0 to 1
  broadcast 2ndCoin
  
```

This part of the code simulates tossing two coins one time. The code uses 0 to represent a head and 1 as a tail. It can be used in a repeat to simulate many tosses.

Changes code so that the experimental probabilities are closer to the theoretical probabilities

By changing the number of repeats to a very large number, I can get experimental probabilities that are very close to the theoretical probabilities.

Finds and fixes errors in code and/or pseudocode that simulates coin tosses

When I ran my code, the probability for 2 tails was much greater than for 2 heads. I looked at my code and noticed I used the wrong random number range for the coins.

Alters code or pseudocode to simulate tossing 1 fair and 1 unfair coin

I changed the random number range for one of my coins to 0 to 3, with 1, 2, and 3 all representing tails.

This represents a coin with a $\frac{3}{4}$ probability of landing tails.

Observations/Documentation