MTH 105 Introduction to Contemporary Mathematics

Practice with Percentages

1. Suppose I flip a coin and get 40 heads and 60 tails, what percentage of the flips was heads?

2. What percentage of the cards in a deck are diamonds?

3. Suppose you roll a die 40 times and you get a six 10 times. What percentage of the time did you get a six? What percent of time did you not get a six? What do you think about this die?

4. Remove three cards from a deck of playing cards: one black and two red. From those three cards choose one at random and record the color. When you repeat the experiment, put the card back and mix the cards up.

   (a) Repeat this experiment with a partner 3 times. What percentage of the time did you get red? Is that what you expected? Explain.

   (b) Repeat this experiment with a partner, but this time do it 12 times. What percentage of the time did you get red? Is that what you expected? Explain.

(c) Repeat this experiment with a partner, but this time do it 36 times. What percentage of the time did you get red? Is that what you expected? Explain.

5. I have 185 coins. If 20% of the coins are pennies, how many are pennies?

6. I have a collection of nickels and dimes only. If 40% of the coins are nickels and 99 of the coins are dimes, how many nickels do I have?