

What Are The Odds?

Name: _____

Date: _____



(Note: This assignment is worth five bonus points. Upon handing in this worksheet, you will receive a poker chip. The chip is worth five points and can be added on to any test of your choice. Please be honest and record accurately the results of the various experiments from the bulletin board. These results will be combined to see how your real-life trials compared to the expected probabilities.)

A. Poker Game

- a. Flip over the top row of four cards and insert them in their respective slots face up. Now that you see your partial hand, what is the probability that you complete this hand? _____ (Note that there are 48 cards left in the deck. Also, getting a matching pair does not successfully complete the hand.)
 - i. Next, choose a card from the deck and insert it into the empty fifth slot. Did you successfully complete your hand? (Yes/No) _____
- b. Repeat this process for the second row of cards.
 - i. What is the probability you complete this hand? _____
 - ii. Did you successfully complete the hand? (Yes/No) _____

B. Roulette Wheel

- a. Answer the following probability questions about the roulette wheel.
 - i. What is the probability of getting a black space? _____
 - ii. What is the probability of landing on a house (green) space? _____
 - iii. What is the probability you land on a multiple of 3? _____

- b. Spin the roulette wheel three times and record what you roll.
- i. Spin 1: _____ (Color/Number)
 - ii. Spin 2: _____ (Color/Number)
 - iii. Spin 3: _____ (Color/Number)

C. Roll The Die

- a. Answer the following probability questions:
- i. What is the probability of rolling a three? _____
 - ii. What is the probability of **not** rolling a five? _____
 - iii. What is the probability of rolling an even number? _____
 - iv. What is the probability of rolling a seven? _____
- b. Roll the die six times and record the results.
- i. 6 Rolls: _____, _____, _____, _____, _____, _____
 - ii. Based on your rolls and seeing my hand-made die, do you feel that this die is fair? Why or why not?
