Name: _____ **Show work needed to justify your answer.** Date: _____

HW: # 31a: Math IBSL - Standard 30 - Theoretical and Experimental Probability 5 points

---

2 The sides of a six-sided spinner are numbered from 1 to 6. The table shows the results for 100 spins.

Number on spinner	1	2	3	4	5	6
Frequency	27	18	17	15	16	7

a What is the relative frequency of getting a 1?

b Do you think the spinner is fair? Give a reason for your answer.

The spinner is spun 3000 times.

c Estimate the number of times the result will be a 4.

---

3 An eight-sided dice numbered from 1 to 8 is rolled 80 times to determine whether it is fair.

a If the dice is fair, how many of each number would you expect to get?

The results obtained were:

Number on dice	1	2	3	4	5	6	7	8
Frequency	8	8	12	11	11	12	11	7
Relative frequency								

b Copy and complete the table with the relative frequency of each of the possible outcomes. Give your answers to 3 significant figures.

The dice is rolled 320 times more.

Number on dice	1	2	3	4	5	6	7	8
Frequency	29	41	43	39	45	46	32	45

c Using the **combined data from the two tables**, determine the relative frequency for each possible outcome.

Relative frequency								

d Conclude from the data whether the dice is fair.