

FLIPPING A COIN: An Experiment in Probability



Name _____

Date _____ Period _____

- What is the **theoretical probability** of getting tails:
 - ... in general? _____
 - ... after 10 trials? _____
 - ... after 20 trials? _____
 - ... after 50 trials? _____

2. With a partner, flip a coin 50 times, stopping after 10 and 20 trials to answer the questions below.

Trial	Outcome	Trial	Outcome	Trial	Outcome	Trial	Outcome	Trial	Outcome
1		11		21		31		41	
2		12		22		32		42	
3		13		23		33		43	
4		14		24		34		44	
5		15		25		35		45	
6		16		26		36		46	
7		17		27		37		47	
8		18		28		38		48	
9		19		29		39		49	
10		20		30		40		50	



- What is your **experimental probability** of getting tails:
 - ... after 10 trials? _____
 - ... after 20 trials? _____
 - ... after 50 trials? _____

4. What do you notice about your **experimental probability** as the number of trials increases?

5. How many tails would you expect to get in 100 trials, based on your **theoretical probability**? _____

6. How many tails would you expect to get in 100 trials, based on your **experimental probability**? _____