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$\qquad$

1. Flip a coin 30 times. Record the results of your experiment below.

Example:

| Trial <br> Number | Outcomes | Cumulative <br> Frequency of <br> Heads | Probability as <br> a percent <br> Cumulative <br> Frequency <br> Trial Number |
| :--- | :---: | :---: | :---: |
| 1 | H or T | 0 | 0 <br> $\frac{0}{1}$ |
| 2 | Hor T | 1 | $\frac{1}{2}=50 \%$ |
| 3 | H or T | 1 | $\frac{1}{3}=33 . \overline{3} \%$ |
| 4 | Hor T | 2 | $\frac{2}{4}=50 \%$ |
| 5 | H)or T | 3 | $\frac{3}{5}=60 \%$ |

Make a sketch of what you think the graph will look like. (Trials Completed and Percent Heads)

| Trial <br> Number | Outcomes | Cumulative <br> Frequency <br> (Circle H or T) <br> of Heads | Probability <br> as a percent <br> Cumulative <br> Frequency <br> Trial Number |
| :--- | :---: | :---: | :---: |
| 1 | H or T |  |  |
| 2 | H or T |  |  |
| 3 | H or T |  |  |
| 4 | H or T |  |  |
| 5 | H or T |  |  |


| 6 | H or T |  |  |
| :--- | :---: | :--- | :--- |
| 7 | H or T |  |  |
| 8 | H or T |  |  |
| 9 | H or T |  |  |
| 10 | H or T |  |  |
| 11 | H or T |  |  |
| 12 | H or T |  |  |
| 13 | H or T |  |  |
| 14 | H or T |  |  |
| 15 | H or T |  |  |
| 16 | H or T |  |  |
| 17 | H or T |  |  |
| 18 | H or T |  |  |
| 19 | H or T |  |  |
| 20 | H or T |  |  |
| 21 | H or T |  |  |
| 22 | H or T |  |  |
| 23 | H or T |  |  |
| 24 | H or T |  |  |
| 25 | H or T |  |  |
| 26 | H or T |  |  |
| 28 | H or T |  |  |
| 29 | H or T |  |  |
| 30 | H or T |  |  |


2. Graph your results below. Draw lines between the points when you are finished.
3. How are theoretical and experimental probabilities similar and different?
4. What happens to experimental probability as the number of trials increases?
5. Did your graph turn out how you expected? Why or why not?

