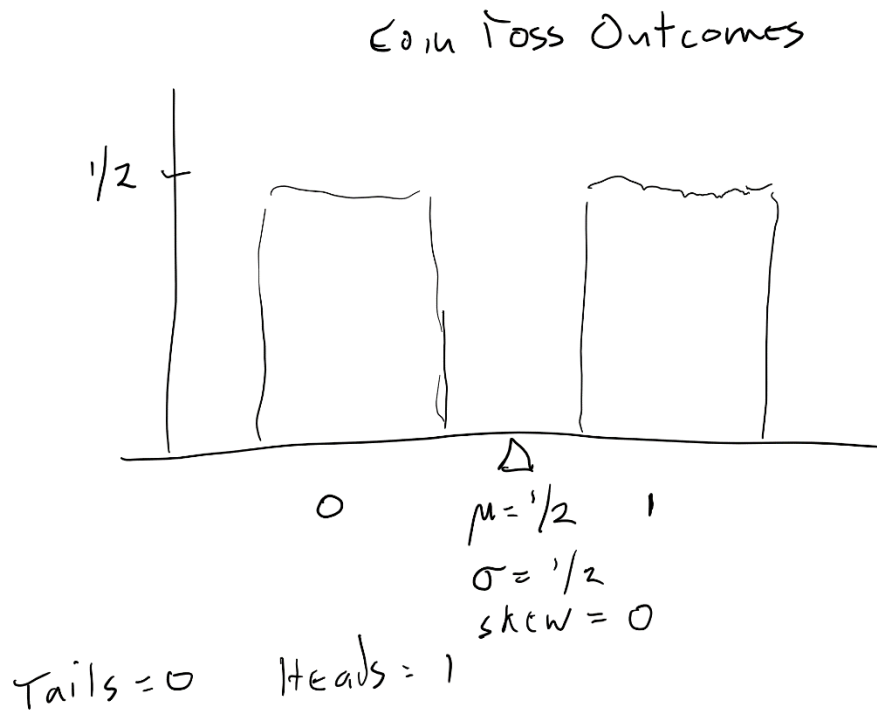
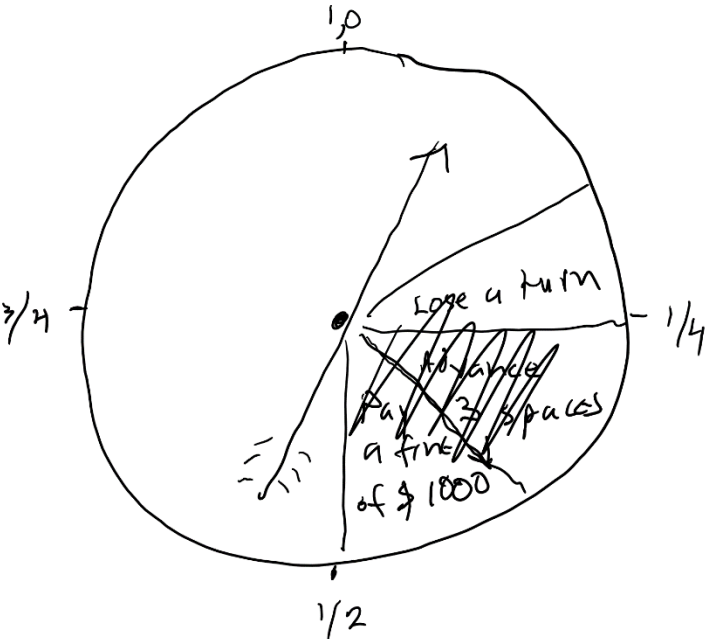


Here's a picture of the probability distribution of a Bernoulli random variable with $p(\text{success}) = \frac{1}{2}$. We arrived at our conclusions regarding mean, standard deviation, and symmetry just by thinking about the variable:

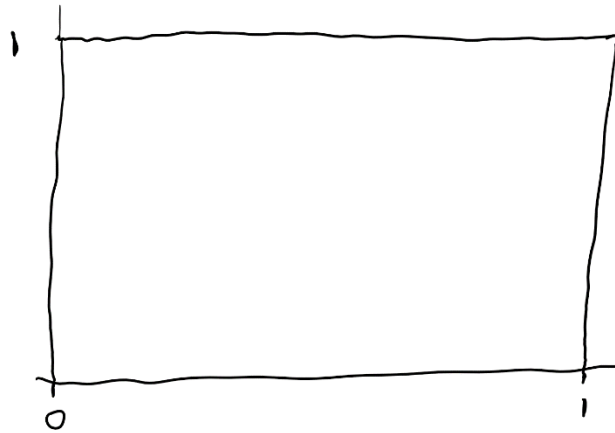


Here's a picture of a game spinner, relabeled to become a random process that would lead to a uniform distribution on the interval (0,1).



And here's a picture of the corresponding probability density function, along with our logical guesses at the values of descriptive statistics. (Our intuition about the sd was actually wrong; we should have said about $\frac{1}{4}$ rather than about $\frac{1}{2}$.)

$$pdf(x) = \begin{cases} 1 & 0 < x < 1 \\ 0 & \text{else} \end{cases}$$



$$\mu = 1/2$$

$$\sigma = 1/2$$

(not quite true)

$$med = 1/2$$

$$iqr = 1/2$$