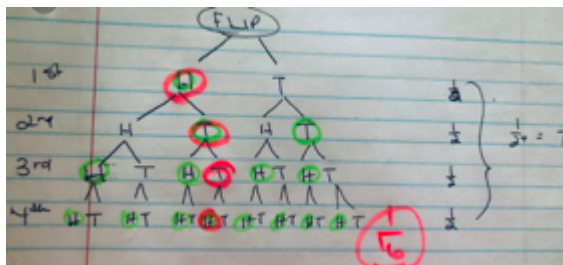


## 3.2.4 Drill - Exercises in Probability

### Question #1

All combos have the same probability. (HTTH, HHHH, and TTHH)

$$1/2 * 1/2 * 1/2 * 1/2 = 1/16$$



### Question #2

24 out of 45 probability of not choosing a man.

24/45

### Question #3

$$P(\text{crash}) = P(5/1000 \mid 1/10) = 5/1000 * 1/10 = 5/10000$$

5/10000 or .005% chance Bernice will be in a plane crash next year

### Question #4

The sample is dependent on those willing to do a survey and that they receive the opportunity to take the survey. People who tend to surf would click within the site more often, rather than those who specifically go to the site, and "surfers" may be overly represented in the sample.

What would be a better way to approach this? Ask everyone that lands on the company site to take the survey?