1. The probability of each of the coin toss outcomes should be the same – .5 X .5 X .5 X.5 = .0625.

2.

The probability of not choosing a man is 24 out of 45.

3.

The probability that Bernice will be in a plane crash some time in the next year is .005% of 10% which is .0005% or .000005.

4.

The data scientist is measuring the number of times a user fills out a survey to conclude how long the user is spending on the site. There is no correlation between the fact that a user has a 5% probability of being asked to fill out a survey and they length of time the user spends on the site. The two variables are independent.