1. If you roll a sing six-sided die, what is the sample space?

$$\{1, 2, 3, 4, 5, 6\}$$

2. Suppose that you flip a coin three times (or flip three separate coins once). What is the sample space for this event?

HHH, HHT, HTH, THH, HTT, THT, TTH, TTT

3. What is/are the simple event(s) in the three-coin experiment where the outcome(s) has/have two heads?

THH, HHT, HTH

4. If every event in the sample space is equally likely, what is the probability of the event described above?

$$\frac{3}{8}$$

5. What is the difference between the three types of probability: 1) classical/theoretical probability, 2) subjective probability, 3) experimental probability?

Classical is calculated from first principles like the Sample space

Subjective is a personal 'guess'

experimental found from a series of experimental trials

6. What is the Law of Large Numbers?

this law says that the greater the number of trials in an experimental probability the closer it will be to the theoretical value

7. Comment on the article: http://www.nytimes.com/2014/07/25/opinion/dont-teach-math-coach-it.html?_r=0. What do they mean by "coaching" math?