Conditional probability

1. Suppose that we flip a coin three times, and all eight possibilities are equally likely. Moreover, suppose we know that the event F, that the first flip comes up tails, occurs. Given this information, what is the probability of the event E, that an odd number of tails appears?

2. Are events E and F independent?

3. Exercise 9.3.1 from zyBooks

4. Exercise 9.3.6 from zyBooks