**Section 12.1**

**Activity 1**

Suppose you are given the choice between one of the following:

|  |  |
| --- | --- |
| **Option A - Cards**   * Draw one card from a deck of cards. * If it is a 10 you get an A on the final exam. * Otherwise, you have to take the final exam. | **Option B - Dice**   * Roll two dice. * If they add up to 10 you get an A on the final exam. * Otherwise, you have to take the final exam. |

**Which option would you chose, and why?**

**Activity 2**

What is the probability of rolling a pair of dice and coming up with a 7?

**Activity 3**

I am going to toss three “fair” coins all at the same time.

* What is the size of the sample space? (List all the possible outcomes)
* What is the probability of getting 1 head and 2 tails?
* What is the probability of getting all tails?
* What is the probability that no heads come up?
* What is the probability of all tails OR all heads?
* What is the probability of getting all tails AND all heads?

**Activity 4**

So let’s return to my original question.

* If I was really offering this choice (which I’m not) and you wanted an A on the final, which choice would you pick?