

**Math 5710**  
**Equally Likely Outcomes**

1. A pair of dice are thrown. Find the probability that the sum is equal to 9 .
2. A coin is tossed 5 times. Find the probability of getting exactly two heads. Find the probability of getting at least two heads.
3. Given a class of size  $n$ , find the probability that two or more students have the same birthday.
4. Deal cards until the first ace appears. Find the probability that the next card is the ace of spades. Which is more likely to be next: the ace of spades or the two of clubs?
5. Find the probability of being dealt a full house in poker.
6. A couple want to have no more than 4 children. They will stop having children as soon as they have 1 girl. Find the probability that the couple will have a girl.