

## Worksheet 01

1. We will give more formal definitions later, but for now define a probability of an event to be a number between 0 and 1 that indicates how likely an event would be to happen. For example, a value of 0 indicates that it will never happen, a value of 1 that it will always happen. This matches the way that the word ‘probability’ is colloquial used in a non-technical context. While in casual conversation most people refer to the number as a percentage or fraction, it will be good to start thinking of them as decimals. Given this, give approximate values for the probability of the following events:

- (a) A randomly selected M&M will be blue.
- (b) A randomly selected car in Virginia is electric.
- (c) A randomly selected book starts with the word ‘The’.
- (d) An NBA basketball player will make a free throw.
- (e) A pregnancy results in having twins.
- (f) A clover will be a four-leaf clover.
- (g) A letter will be lost by the U.S. postal service.
- (h) Someone born in the U.S. in the year 2000 is named Taylor.