

## Chapter 10 Introducing Probability

### Key Ideas

#### The subjective (personal) definition of probability:

- The **probability** that an event occurs is determined by (expert) judgment about how likely the event is to occur.

#### The relative frequency definition of probability:

- The **probability** that an event occurs is the proportion of times an event would occur in a long series of repetitions.

#### Probability Rules

1. Probabilities are numbers between 0 and 1.
2. All possible outcomes together must have probability 1.
3. The probability that an event does not occur is 1 minus the probability that the event does occur.
4. If two events have no outcomes in common, the probability that one or the other occurs is the sum of the probabilities of the two individual events.