# D4.1 A Theoretical probability

This animation will help students to:
- Understand and use the probability scale from 0 to 1; find and justify probabilities based on equally likely outcomes in simple contexts (278)

**Key words**

Probability
Outcomes
Even
Multiple
Factor

## Overview

The animation shows how to find the probabilities of three single events based on 1-10 digit cards.

The animation lists the possible outcomes in each case. It gives the probabilities as fractions and cancels them to their lowest terms.

## Differentiation

This animation is based on D4.1 OHP, which is taken from the example on page 210, lesson D4.1, from the Year 7 Support book.

The animation is also suitable for Core students.

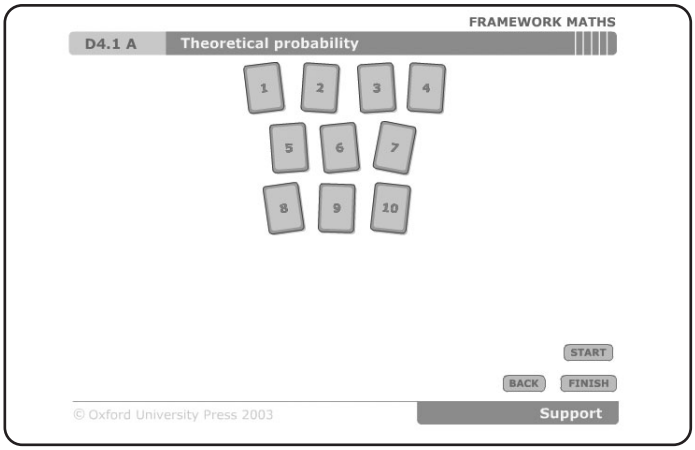
You can extend the animation by asking the students for the probability of an odd number, a square number, a triangular number, a multiple of 5 etc

## Commentary

The animation starts with a set of 1-10 digit cards.

There are three examples:

- The first example shows the probability of choosing an even number - the even numbers move to the bottom of the screen and the animation displays the fraction $\frac{5}{10} = \frac{1}{2}$
- The second example shows the probability of a multiple of 3 as $\frac{3}{10}$
- The third example shows the probability of choosing a factor of 12 as $\frac{4}{10} = \frac{2}{5}$




## Teaching points

Some students can become confused with the vocabulary of multiple and factor, and so the animation deliberately shows the outcomes without any user input.

Emphasise the strategy of listing the outcomes and then working out the fraction.