

Probability from a Table

12 students move into a university hall of residence. Some details about them are given below:

Name	Gender	Subject	Nationality
Iain	Male	Politics	British
Andy	Male	Politics	British
Sarah	Female	French	Spanish
Annie	Female	Media	British
Colin	Male	Maths	British
Rob	Male	Maths	British
Richard	Male	Physics	British
Kumiko	Female	Politics	Japanese
Deana	Female	English	Malaysian
Sarah	Female	History	British
David	Male	Maths	British
Andy	Male	Classics	British

To work out a probability, write as a **fraction**:

$$\frac{\text{Number of times it happens}}{\text{Total number of possibilities}}$$

Eg: The probability of a **student** chosen at random being **British** is:

$$\frac{\text{Number of **British students**}}{\text{Total number of **students**}} = \frac{9}{12} = \frac{3}{4}$$

Work out the following probabilities:

- 1) A **student** chosen at random is **male**:
- 2) A **student** chosen at random is called **Andy**:
- 3) A **student** chosen at random studies **Maths**:
- 4) A **female student** chosen at random studies **Politics**:
- 5) A **Politics student** chosen at random is **female**:
- 6) A **female student** chosen at random studies **Maths**:
- 7) A **foreign student** chosen at random studies **Politics**:
- 8) A **Politics student** chosen at random is **foreign**:
- 9) A **male student** chosen at random studies **Maths**:
- 10) A **Maths student** chosen at random is **male**:

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Work out the following probabilities:

1) A **student** chosen at random is **male**:

$$\frac{7}{12}$$

2) A **student** chosen at random is called **Andy**:

$$\frac{2}{12} = \frac{1}{6}$$

3) A **student** chosen at random studies **Maths**:

$$\frac{3}{12} = \frac{1}{4}$$

4) A **female student** chosen at random studies **Politics**:

$$\frac{1}{5}$$

5) A **Politics student** chosen at random is **female**:

$$\frac{1}{3}$$

6) A **female student** chosen at random studies **Maths**:

$$\frac{0}{5} = 0$$

7) A **foreign student** chosen at random studies **Politics**:

$$\frac{1}{3}$$

8) A **Politics student** chosen at random is **foreign**:

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