TWO WAY TABLES AND STEM AND LEAF
Statistics

Key Concepts

Two way tables are used to tabulate a number of pieces of information.

Probabilities can be formulated easily from two way tables.

Stem and leaf diagrams are used to order and organise data. A **key** must be included.

Averages can be found easily from stem and leaf diagrams.

Here are the times, in minutes, taken to solve a puzzle.

5	10	15	12	8	7	20	35	24	15
20	33	15	24	10	8	10	20	16	10

Draw a stem and leaf diagram:

0	5 7 8 8
1	0 0 0 0 2 5 5 5 6
2	0 0 0 4 4
3	3 5

Key: 2 | 4 = 24

Calculate the median value = 15
State the mode = 10
Calculate the range = 35 - 5
= 30

Examples

80 children went on a school trip. They went to London or to York.
23 boys and 19 girls went to London. 14 boys went to York.

	London	York	Total
Girls	19	**24**	**43**
Boys	23	14	**37**
Total	**42**	**38**	80

What is the probability that a person chosen at random went to London? $\frac{42}{80}$

If a girl is chosen, what is the probability that she went to York? $\frac{24}{38}$

MathsWatch

61, 128b

Key Words
Two way table
Stem and leaf
Mode
Median
Probability

1) Here are the speeds, in miles per hour, of 16 cars.

31 52 43 49 36 35 33 29
54 43 44 46 42 39 55 48

a) Draw an ordered stem and leaf diagram for these speeds.
b) Calculate the median, mode and range

2) Complete the two way table:

	Year Group			Total
	9	10	11	
Boys			125	407
Girls		123		
Total	303	256		831

ANSWERS: 1) b) median = 43, mode = 43, range = 26