Guidance for tutors

<table>
<tr><td>Outcome</td><td>S4</td><td>Student can consistently:</td><td>Draw and interpret two-way tables.</td></tr>
<tr><td>How the topic is examined</td><td colspan="3">

Examined through test paper questions.
There are two ways in which this topic could be examined:

Students are given a two way table and they have to complete it or extract information.
Alternatively students may be given a list of information and then they have to realise they have to complete a two way table in order to answer the given question.

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<tr><td>Prior knowledge</td><td colspan="3">

Students should be confident with:

Basic number work.

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<tr><td>Suggested tuition approaches</td><td colspan="3">

Questions where students are ask to find information from a two way table are quite straight forward. It may ask students to fill in missing values.
More complicated examples are where students are given a series of statements and they need to realise to create their own table of data.

<table>
<tr><th>Question</th><th>Solution</th></tr>
<tr><td>40 people take part in a show
A show is made up of singers, dancers and actors.
Here is some information

There are 22 males in the show
15 of the males are dancers
There 8 female singers
Of the 7 actors, 2 are male

How many dancers are in the show?</td><td>Students have to realize that the best way to solve this problem is to create a two way table.

The show contains singers, dancers and actors.
They can either be male or female.

<table>
<tr><th></th><th>Singers</th><th>Dancers</th><th>Actors</th><th>Total</th></tr>
<tr><td>Male</td><td>5</td><td>15</td><td>2</td><td>22</td></tr>
<tr><td>Female</td><td>8</td><td>5</td><td>5</td><td>18</td></tr>
<tr><td>Total</td><td>13</td><td>20</td><td>7</td><td>40</td></tr>
</table>

So there are 20 dancers in the show.</td></tr>
</table>
</td></tr>
</table>

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	• Some general principles
	  ○ The last row and column will provide the totals.
	  ○ The number in the bottom right-hand corner will provide the overall total.
	• Encourage students to check that all their numbers add up to the totals before working out the question.

Common errors and misconceptions	• Mistakes can often be made with basic adding up and subtracting particularly if the question is on a non-calculator paper. Encourage students to double check their working out. • Students sometimes create the table correctly but don't go on to answer the specific question that is asked.

Suggested resources	• Questions
	  ○ http://www.cimt.org.uk/projects/mepres/allgcse/bkb8.pdf (pp 95 - 98)
	  ○ https://corbettmaths.files.wordpress.com/2013/02/two-way-tables-pdf.pdf
	• Past GCSE Questions
	  ○ https://keshgcsemaths.files.wordpress.com/2013/11/45_two-way-tables2.pdf
	• Video tutorial
	  ○ http://corbettmaths.com/2012/08/10/two-way-tables/