

# Things to try if you are stuck

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“It’s us against the problem, and you get into this frame of mind where you are absolutely determined to sort this thing out and solve it. And then when things start to click and come together, and suddenly the whole problem opens up in front of you, this is a wonderful feeling. We probably get this feeling about 1% of the time and the other 99% you’re banging your head against a brick wall saying ‘I don’t understand this’.”

— Ian Stewart (Professor of Mathematics and author of many popular books), talking about doing maths on *The Life Scientific*, BBC Radio 4, 17 September 2013.

Being stuck is an important part of your learning. It is you learning to move beyond what you know to find something new. Please don’t worry.

Here are some ideas of things to try if you are stuck, good habits to get into. Particularly, these are things you should make an effort to show that you are trying when doing assessed work, particularly if you can’t find a full solution (e.g. in the exam).

- try to reword the problem – what are the crucial features of the problem?;
- try to draw a diagram;
- try to explain the problem to someone else and talk to them about why you are having trouble finding a solution (not in the exam!);
- try to solve a simplified version of the problem, perhaps by removing some of the restrictive conditions or adding more restrictions (depending on the problem!);
- make a conjecture and test it;
- make it clear what you have tried and why you are sure that doesn’t work;
- critique the problem – what is making it hard to solve?