By way of introduction: who we are, why you’re here and why you should bother

A bit about me

* Daniel Czapski, ATAR 99.65, didn’t go to a selective or private school; 99 in 3U, 93 in 4U.
* Third year physics/maths major at UNSW
* Tutor at Talent 100 – take year 11 and year 12 maths extension 1 at Burwood

A bit about Talent

* It’s a tutoring centre. Not sure there’s much else I should say without it looking too much like advertising.

Mathematics

* What it is
* Why we study it
* A bit about general areas of mathematics and where the HSC course fits into it
* Areas of maths I’m interested in and why

Stuff that might be a bit more relevant

* Tips for study
  + Understanding why a result exists and under what circumstances it’s applicable is just as if not more important than just learning the result. You have a formula sheet to tell you the basic “what”; mathematics is about the “why” and “how”. Learning the proofs of certain results helps with this. This isn’t just limited to mathematics. Try to understand the content rather than just memorise and do a brain dump.
  + Practice! Do textbook questions. Do past papers. It helps. A lot. If you can find papers from other schools, that’s good too. Expose yourself to the widest range of questions possible to see how concepts can be applied. The more the better. Exam conditions, if you want; optional but recommended. I personally didn’t, but once you’re confident with a subject, performing under time constraints is much easier.
  + If you don’t know how to answer a question, don’t be afraid to look at the solutions – you learn the same content, often in less time, than spending ages scratching your head over it. It’s about
* Exam technique (just general stuff, probably nothing they haven’t already heard)
  + Read the entire paper first – get an idea of what you’re up against. Some people like to try and do the multiple choice in reading time; I personally never bothered, except for extremely easy ones. I found it better to get a holistic idea of the paper and use the time to plan my attack – what I know I can do straight out of the gates, what might take a bit more time to work out.
  + Don’t underestimate multiple choice! You’ve been doing mathematics at a senior level for several months now, so you know this already. As such, don’t waste too much time on them. They’re only worth one mark each; some of them can be quite time-consuming, and, in a pinch, that time might be better spent on a part of question 12 or 13.
  + You are permitted to do rough working. Write on the exam paper, scribble lightly in the margins, what have you – it can be extremely helpful to try something out before committing yourself to writing it up properly.
  + Draw diagrams (and make them big). We’re old and going blind. Large, well-labelled diagrams help the markers understand what you’re trying to do, and making them big simply means it’s easier to see.
  + If you’re going to use notation that isn’t given in the question, introduce it explicitly. E.g. if you want to call an angle “x”, write somewhere something like “let angle ABC = x”. Just putting it in the diagram isn’t sufficient.
  + Don’t worry too much about using lots of paper – a marker will prefer four pages of working that’s clear and easy to follow than half a page of tiny writing that’s squashed in three columns and up the side of the margin because you were on the last page of your writing booklet and you didn’t want to ask for another one because it was the last part of the last question (we’ve all done it). You should try to make your marker’s life as easy as possible: a confused or annoyed marker is less inclined to give you marks!
  + HSC mathematics exams are generally ordered in terms of difficulty. Question 11 should be quite straightforward; question 16 is usually pretty tough! Use this to your advantage and plan your approach accordingly.