

## Common Math Myths

- **Myth #1:** If I can't solve a problem after working on it for 5 - 10 minutes, I won't be able to solve it on my own.

This does not mean that you shouldn't seek out help when you are confused. Some problems simply take a long time to do, either because of long computations or because they require much thought. Try to break down a problem into smaller pieces and then work on those pieces.

- **Myth #2** I'm the only one who doesn't understand (*fill in the blank*).

You aren't. So ask! But even if you are, so what? Learning math is certainly not a race (but even if it were, don't forget about that plucky tortoise when your classmates start to act like hares!). Some of the greatest mathematical minds are "slow" learners.

- **Myth #3:** It shouldn't take me 30 minutes to read one paragraph in my book.

Often, it does. Sometimes, it may take even longer. Sometimes, it goes quickly. Keep a pencil with you when reading to jot down questions and to fill in steps/details/computations that the author omitted.

- **Myth #4:** Spending 4-5 hours each week studying for this class is enough for me to do well.

For most people, the total is closer to 8-10 hours, which includes homework, office hours, and reading the text. If it's more, let me know.

- **Myth #5:** If I don't understand the lectures/the book/the homework right away, I will not do well in this course.

These concepts require **time** to sink in. In fact, I don't expect you to understand portions of the book until after you've heard me lecture. And even then, some concepts might still prove elusive. Nevertheless, it does help to read the book before I lecture and glean as much as you can from it. The more you actively struggle with the material on your own, the more you will learn (and listening to lecture is a decidedly passive endeavor).

- **Myth #6:** If I fall behind, I can catch up easily.

Calculus at Swarthmore is fast-paced and the material is cumulative, so if you fall behind, you really damage your chances to succeed. It will be much harder to follow my lectures and to participate in group work if you are not up-to-date on the material. On exams, you will not only be expected to solve problems but also to demonstrate a deep understanding of the concepts and main ideas. Such understanding takes time.

