

Subject: the importance of practice and repetition
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I know sports analogies aren't meaningful to everyone, but this is an interesting perspective on what it takes to perform under pressure:

<https://www.msn.com/en-us/sports/nba/michael-jordan-explains-why-players-of-today-s-nba-couldn-t-hit-game-winning-shots-like-him/ar-AA1dGgPX?ocid=hpmsn&cvid=8e68fbf754bf4239a6e6b8af96198d27&ei=13>

You can apply this to many aspects of your life.

For example, in ECE 1111, one of the most daunting tasks you will face is programming under the time constraints of a 20-minute quiz and a 50-minute exam. Most of you will not be able to think clearly and after the exam is over, you will be left wondering "what was I thinking?"

Sooner or later you will come to me and ask how can I do better in this course?

And the answer is simple - practice, practice, practice.

Most good programmers often say "the only good programs I have written are ones I have written four or five times before." With practice, you learn how to think like a programmer, how to decompose big problems into small steps, and then every program starts to look like one you have written before.

THIS IS THE MOST IMPORTANT THING I WILL TEACH YOU THIS SEMESTER: problem decomposition. It is what makes an engineer an engineer.

On the other hand, the most experienced programmer in this group, yesterday dropped this magic one-liner on us:

```
def get_key_pair(s):  
    return (itemgetter(0)(s.split('=')) , list(map(str.strip,itemgetter(1)  
(s.split('=').split(',')))) if len(list(map(str.strip,itemgetter(1)(s.split('=').split(','))))  
> 1 else (itemgetter(0)(s.split('=')) , list(map(str.strip,itemgetter(1)  
(s.split('=').split(','))))[0])
```

He reduced a piece of code that was about 30 lines long to one line in Python.

I am still, to this day, astounded by programmers who think this way!



-Joe