Syllabus

0.3 [Problem Solving]

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Objective

Fully realize that you have the skills to solve math problems

Start

Intro

- https://www.youtube.com/watch?v=JC82Il2cjqA

You've been doing math for a number of years now. Some of you are really good at it, and some of you are still learning it. Thats ok, but this semester consider yourself starting new. When we become a Christian, we have to start somewhere. But our former sins, everything we've done wrong, has been wipped clean. Similarilly, lets consider yourself starting new this semester. Lets forget about your fear of math (if any), let's forget about your previous scores, and start fresh!

And we're going to start fresh with a pop quiz!

[Pop Quiz 4.4]

Reading

Reading is perhaps one of the most important skill you will ever aquire. Reading is a portal, wormhole, gateway, big shiny golden door to knowledge. Your ability to learn on your own depends quite heavlily on your ability to read.

In math, reading is essential: we must first understand what we are trying to accomplish before we can solve the problem. This is a skill that transfers across to board of your life, and is essential to master so that you don't end up walking

the plank to a swirling pool of sharks below. But how does one begin to be a better reader? Well, my first suggestion may in fact be revolutional, radical (which means to return to the roots), and it is such: listen very very carefully.

If you want to learn to read better..... wait for it..... you will need to **practice reading**.

Reading is like running, like exercising, like doing anything really. If you want to get better at something, you have to do it more. So if you want to learn to read better, you are going to need to practice it. I suggest reading books, and in fact, reading the GOOD BOOK is a great place to start. But read, learn to listen to other people, and write about what your reading.

But in reading math problems, I have a some suggestions to make life easier.

The most essential thing for all questions is to break it down into parts that you can understand. The journey of a thousand miles begins with a single step, and likewise, once you place your trust in Christ, you don't magically become the most mature Christian on the planet. There is a process of growing up that is required. And that growing up requires steps.

When you come across a hard problem that looks too huge, its like looking at all the decisions in your life that you will one day make, and trying to make them all at once. Big problems can be broken down into smaller problems, and those small problems can be solved one at a time.

So, here's one way to do it:

1. Read the problem carefully (and pay attention to anything that isn't clear to you)
2. Re-read the problem (you need to be absolutely clear about what you are trying to do)
3. List what you do know at the top of the page (or wherever you like) - part of this involves becomming organized
4. Find necessary information begin solving the problem: What do you need to know that you don't already? (and find that information)
5. Solve one step at a time (and label your steps in a neat section)

[How to solve document]

Here is a sample on how to solve things. It is by no means perfect, and I am not expecting you to download this and print it out to use. It is a framework for your own benefit. This type of format is incredibly helpful when solving physics questions, and I think it will be too for math. However, if you can create a better format, I would be very interested in using that as well.

Adaptive Dimensions

Some of you may still be intimidated by math. Half the battle of learning math is understanding that you can learn math. Some of you have believed a lie that you are no good at math, and I hope that by the end of this semester you can unlearn that.

But if you need help, here is the process you can use:

1. Re-read the problem carefully
2. Try and find help on your own means (by either talking to a neighbor - **not sharing** answers, but rather helping others understand, or online - but **not off-task**.)
3. Write down that you have a question, and then continue working on other things. I will try and address the question as I have time.
4. If you feel you are falling behind, talk to me, and we can work things out.

Example 1

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Assignment

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End

We start learning Workplace and Apprenticeship next, any questions before we begin?