

Math 215 Reflection 1

Keith Wesa

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1 Prompt 1

We are fortunate to have a small class setting for this course. It will be nice and beneficial to get to know a bit about everyone.

Please respond to following questions below:

What year of study are you in? What program are you taking or considering? Tell me something constructive that you did over the past year and/or something constructive you intend to do this year (i.e. new hobbies or skills, focusing on mental health, etc.).

1.1 Response

I'm a jounior in a computer science program. The constructive thing that I've done over the past year that isn't related to school or work is that I've been volunteering at the Illinois Railway Museum. I installed a train power station, and also helped rewire a old metra car.As well as gotten the trains ready for special events that are held for the public.

2 Prompt 2

One of my favourite poems is "When I Heard the Learn'd Astronomer" by Walt Whitman. I am quite notably not an expert in poetry, but I think the actual meaning of the poem is that nature can only be understood by experiencing it rather than by sitting in a classroom. I like to interpret this poem as saying that it is easy to lose passion in a subject when it is presented in a mundane fashion or lacks motivation

please read and respond to the poem below:

When I Heard the Learn'd Astronomer
By: Walt Whitman

When I heard the learn'd astronomer,

When the proofs, the figures, were ranged in columns before me,
 When I was shown the charts and diagrams, to add, divide, and measure them,
 When I sitting heard the astronomer where he lectured with much applause in
 the lecture-room,
 How soon unaccountable I became tired and sick,
 Till rising and gliding out I wander'd off by myself,
 In the mystical moist night-air, and from time to time,
 Look'd up in perfect silence at the stars.

What are your thoughts on the poem? What expectations do you have for the course? What would help to make this course interesting for you?

2.1 Response

My thoughts on this poem is that it highlights the need for recentering and remembering why we study, why we learn, that all the work seems to be for nothing if not grounded in the fundamental love for what we are learning. The author derives meaning from the mundane, "perfect silence of the stars" and that meaning makes the rest of his work that was making him "tired and sick" worth it.

I expect this course to help encourage my love for math, and to help introduce me to concepts that are outside of the current way that I think about math.

What would make this course more interesting to me is, reflecting on where these concepts came from, and how they are applied in the real world. This will help me understand how to better apply these concepts in my own life, and become a better programmer.

3 Prompt 3

This course is notably different than many of the other (math) courses you might take in during your time as an undergraduate student. Rather than learning (mathematical) content, we are focusing on the ideas and methods of proofs. Such a topics do not (necessarily) have clear-cut real-world examples or applications.

Please respond to following questions below:

Why do we need to prove things?

3.1 Response

I think I'll answer this question with a story. The Therac-25 was a radiation therapy machine that was used in the 1980s. It was a machine that was used to treat cancer patients. This machine took the lives of 3 people, and injured 3

others. The reason for this was that the machine was not properly tested. The machine had a code that would resolve to an error. When the error occurred the machine would give a lethal dose of radiation to the patient. How this applies to mathematical proofs is that we need to prove things are working correctly, it's important to invalidate our assumptions. Sometimes our assumptions are wrong, and we need to prove that they are wrong. The implications of this could mean the matter of life or death in some cases.