Portfolio
01

Assigned in GC on:
9/11 (put the date)

Math as Democracy

Instructions: Read the excerpts linked here. Then answer the reflection questions below.

1) How does this process of creating knowledge through consensus compare to your past experiences learning?

2) The opening paragraph states that all mathematical knowledge is formed by consensus. Are there types of knowledge that can't be formed by consensus? Why or why not?

3) What other thoughts or questions do you have about the process described?

Portfolio
02

Assigned in GC on:
9/29 (put the date)

LATHISMS: Get Introduced to a Mathematician

Instructions: I want you to leave our class hearing stories of mathematicians. Most students in high school don't know of many mathematicians (but the names like Pythagoras, etc.) but not who current mathematicians are and what they do. Go to this webpage [https://www.lathisms.org/podcasts] and click through the different years/see the different mathematicians. Either listen to the interview or read the transcript. (I love *listening* to the interviews!) and fill in the blanks below. *Note: If you need more room, feel free to add an additional page to write more!*

Mathematician's name:

Put a picture of your mathematician below:

Portfolio
03

Assigned in GC on:
10/27 (put the date)

James Stewart & The Integral House

Instructions: October is LGBTQ+ History Month, and so to tie the two together, I want you to read this article about James Stewart's, and then take a look at these pictures of his house, known as the Integral House. Then answer the questions below.

Write down one specific thing from James Stewart's life that stood out to you.

Why do you think the house is called the Integral House? How does it relate to what we've learned so far about integrals?

Write one other thing you notice or wonder from the articles.

Portfolio
04

Assigned in GC on:
11/4 (put the date)

Four Moments of Reflection

(1) A specific instance from class when I've contributed to the learning of others (write it as a mini-story):
[here]

(2) Something I've learned that was interesting to me, and why it was interesting to me, is….:
[here]

(3) Something I am proud of (that isn't related to the assessment/grades) in this class:
[here]

(4) A specific instance from class when someone has contributed to my learning (write it as a mini-story):
[here]

Portfolio
05

Assigned in GC on:
1/11 (put the date)

Aleph Sub One

Here is a PDF of a math themed science fiction story written by Margaret St. Clair in 1949. Read the story and then answer the following questions.

1. What's one thing that stuck out to you in this story?

2. What's one question about math this story leaves you with?

3. What's one question about not-math this story leaves you with?

4. How do you think this might relate to some of the calculus concepts we've learned this year?

Portfolio
06

Assigned in GC on:
1/13 (put the date)

Maria Agnesi and the Fundamental Theorem of Calculus

Here is a PDF of a chapter about Maria Agnesi and the Fundamental Theorem of Calculus. Then answer the following prompts.

1. What's one thought you have about Maria's life?
2. Do you think Maria's achievements should make her more well-known in math history?
3. What thoughts do you have about the fundamental theorem of calculus and how it applies to motion?
4. What other noticings or wonderings do you have?

Portfolio
01

Assigned in GC on:
2/8 (put the date)

Mathematically Gifted and Black

Each year during Black History Month, a website called *Mathematically Gifted and Black* shares short biographies of Black professionals who use mathematics in their careers. Here are the current honorees from this year, and here are all previous honorees. The biographies are short! Read through 5 (or more!) of them.

Here are the 5 people I read about (and make their name a link to their page):
[here], [here], [here], [here], and [here]

One honoree whose bio or interview stood out to me is: [here]

[Put a screenshot of their photo here]

What stood out to me about what I read about the honoree (or something I thought about after reading) is:

[here – this should be 6-7 sentences… you may be sharing this with someone else from class… if you had more general/collective thoughts about multiple mathematicians that you read about instead of just one person, you can absolutely include that here instead… However you should specifically reference each person whose biographies or experiences you're talking about which led to those more general thoughts.]

Portfolio
02

Assigned in GC on:
2/14 (put the date)

Goals for Second Semester

Instructions: Answer the reflection questions below.

1) What work and study habits helped you master the material we covered in the first semester?

2) What, if anything, do you aim to change in how you approach your work this semester?

3) What can I do to help you meet your goal?

Portfolio
03

Assigned in GC on:
3/7 (put the date)

Emmy Noether

In honor of Women's History Month and our learning about calculus and physics, read the except for **Power in Numbers about Emmy Noether linked here**. Write down two thoughts and one question you have after reading the except.

Thought 1: [here}

Thought 2: [here}

Question: [here}

Portfolio
04

Assigned in GC on:
4/5 (put the date)

Math News!

There was some big news in the math world over Spring Break. One piece of news is about two high school students who purportedly created a new proof of the Pythagorean Theorem many thought was impossible. Another is about a new shape that can single-handedly tile the plane aperiodically that solves a 50+ year old problem. Read one of the articles and answer the prompts below.

Summarize the article you read (beyond my summaries):

What's one feeling you have after reading?

What's one question you still have after reading the article?

Portfolio
05

Assigned in GC on:
4/21 (put the date)

MODERN MATHEMATICS

Much of what you know about mathematics has been defined by standard high school topics. But mathematicians today don't just sit around doing high school calculus problems. There are so many fields -- pure and applied -- and so many problems they are working on. Some have practical applications, some are unlocking beautiful and unexpected connections. I'd love for you to get a glimpse of what mathematicians work on.

The Task: Look through the articles tagged with mathematics in Quanta Magazine [https://www.quantamagazine.org/mathematics/]. Almost all the articles are about modern discoveries or recent or living mathematicians. Find one of them that piques your interest and read it. (For this task, avoid any articles on math history.) Take your time to skim through a few pages to find one that you think will interest you!

Article Title: [here]
Article Author: [here]
Link to Article: [here]

What you took away from the article:
[here]

On a scale of 1 (boring) to 5 (fascinating), how interesting did you find the article? [here]

(Optional): If you think someone you know would be interested in the article, send it to them! Write here who you sent it to and why you chose them!

[here]

Portfolio
06

Assigned in GC on:
5/4 (put the date)

Calculus as Gatekeeper

You're taking calculus right now, as seniors - but why? Read the blog post found here about calculus's role in the high school curriculum, and then write a paragraph below reflecting on what you read, as well as your own experience with taking calculus.

Reflection:

Portfolio
07

Assigned in GC on:
5/10 (put the date)

Princess on the Edge of Town

Read about the legend of Dido in this excerpt from Change is the Only Constant. Then answer the following prompts.

1) Explain the calculus involved in the article in your own words.

2) What do you think about Elissa/Dido's story is true? Why or why not?

3) What other thoughts do you have on this story?

Portfolio
08

Assigned in GC on:
5/18 (put the date)

The Dog That Knows Calculus

Read about Elvis, the Calculus Dog, in this excerpt from Change is the Only Constant. Then write 3 noticings and 2 wonderings you have about the except.