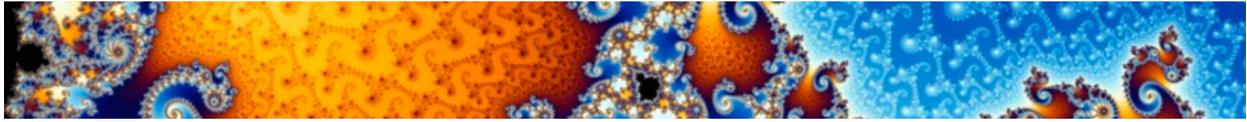


**Digital Math
Notebook
&
STEAM Journal**



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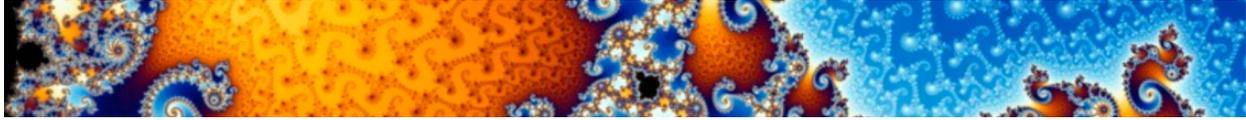
Week 1: 7/27 - 7/30

Links to/Photos of your work - include links to/photos of all work for the week in this section

STEAM Journal Entry - reflect on two components of STEAM this week

- 1) How did we incorporate STEAM in class this week?
- 2) How did you use math outside of math class this week?

We put in a new C day schedule that divided the amount of time while doubling the amount of classes on C days.



Week 2: 8/2 - 8/6

Links to/Photos of your work - include links or photos of all work for the week in this section

[Unit 1 Lesson 1](#)

[Unit 1 Lesson 2](#)

[Unit 1 Lesson 3](#)

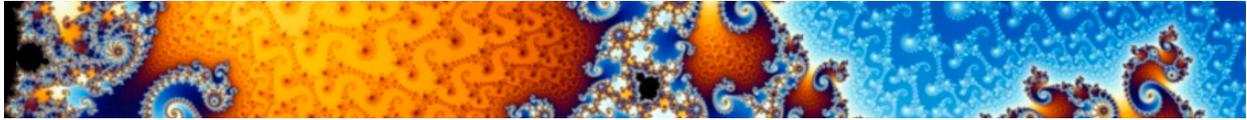
STEAM Journal Entry - reflect on two components of STEAM this week

1) How did we incorporate STEAM in class this week?

We incorporated steam by using trigonometry to solve for unknown values of triangles.

2) How did you use math outside of math class this week?

When I was making music earlier this week, I was adjusting the tempo of the song to align with the sample. The ratio of tempo to amount of bars the sample covers was about 4:6



Week 3: 8/9 - 8/13

Links to/Photos of your work - include links or photos of all work for the week in this section

[Unit 1 Lesson 4](#)

[Unit 1 Lesson 5](#)

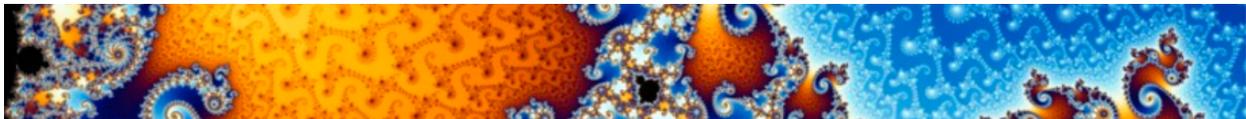
STEAM Journal Entry - reflect on two components of STEAM this week

1) How did we incorporate STEAM in class this week?

I'm in the robotics club and robotics has a lot to do with engineering and computer science.

2) How did you use math outside of math class this week?

Me and my friend were having a stupid arguemnt. He said that he has met millions of people in his 16 years of life (dumb claim). I googled the average number of people someone meets (around 10,000 a lifetime). So I calculated this. If the average lifespan is 79 years and you meet 10,000 people in your life, that means you meet 129 people in a year on average. And if Kenny is 16 years old, he has met around 2,064 people in his life. MILLIONS of people is pretty far from 2,064.



Week 4: 8/16 - 8/20

Links to/Photos of your work - include links or photos of all work for the week in this section

Unit 1 Lesson 6

what do you mean JORDAN ISRAEL
Israel Doby ISRAEL Doby
Israel Doby

$c^2 = 18^2 + 14^2 - 2(18)(14) \cdot \cos(35^\circ)$

$c^2 = 10.35$

$18^2 = 10.35^2 + 14^2 - 2(10.35)(14) \cdot \cos(\angle C)$

$18^2 - (10.35)^2 - 14^2 = -2(10.35)(14) \cdot \cos(\angle C)$

$-2(10.35)(14)$

$a^2 = 18^2 + 14^2 - 2(18)(14) \cdot \cos(35^\circ)$

$a = 10.35$

$\frac{10.35}{\sin(35^\circ)} = \frac{14}{\sin(\angle C)}$

$(10.35 \cdot \sin(\angle C)) = 7 \cdot \sin(35^\circ)$

$\angle C = 10.35^\circ$

$\angle A = 75.37^\circ$

$\frac{14}{\sin(75.37^\circ)} = \frac{18}{\sin(\angle B)}$

$\angle B = 142.31^\circ$

$14 \cdot \sin(75.37^\circ) = 18 \cdot \sin(\angle B)$

$\sin(\angle B) = \frac{14 \cdot \sin(75.37^\circ)}{18}$

$\angle B = 142.31^\circ$

$c^2 = 18^2 + 14^2 - 2(18)(14) \cdot \cos(35^\circ)$

$c = 10.35$

$\frac{10.35}{\sin(35^\circ)} = \frac{14}{\sin(\angle C)}$

$\angle C = 10.35^\circ$

$\frac{14}{\sin(75.37^\circ)} = \frac{18}{\sin(\angle B)}$

$\angle B = 142.31^\circ$

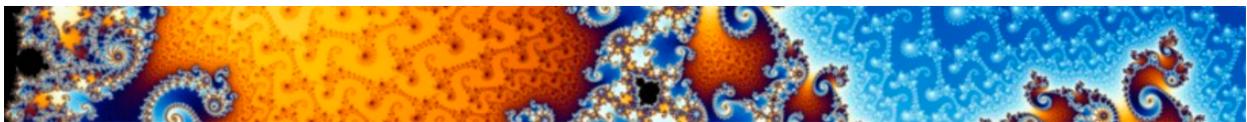
Unit 1 study guide

STEAM Journal Entry - reflect on two components of STEAM this week

1) How did we incorporate STEAM in class this week? We discussed different ways engineers build things and the consequences if they skip steps.

2) How did you use math outside of math class this week?

I discussed with a friend examples of parabolas like how if I were to throw a ball in the air it would be a parabola. I tried to calculate it to the best of my ability using prior knowledge.



Week 5: 8/23 - 8/27

Links to/Photos of your work - include links or photos of all work for the week in this section

[Unit 2 lesson 1](#)

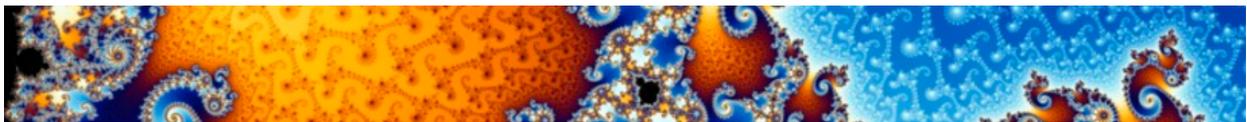
STEAM Journal Entry - reflect on two components of STEAM this week

1) How did we incorporate STEAM in class this week?

We took our first unit test on monday.

2) How did you use math outside of math class this week?

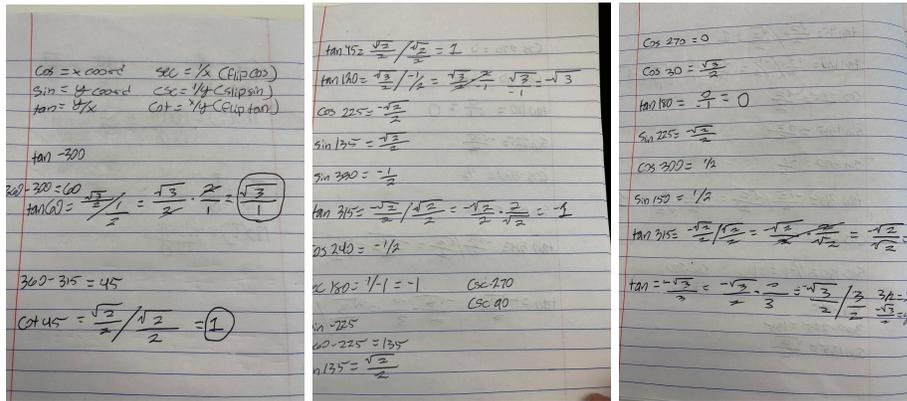
I am super angry that my job is trying to make me work a 7 hour shift this saturday. I calculated the amount of money I would make for these past 2 weeks if I didn't go to work this saturday.



Week 6: 8/30 - 9/3

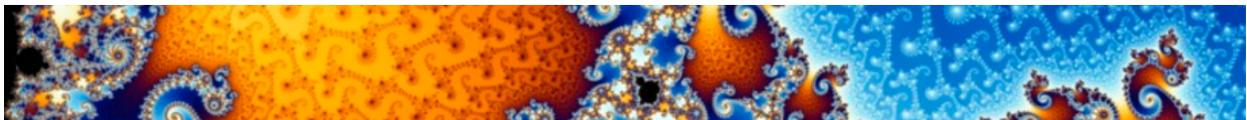
Links to/Photos of your work - include links or photos of all work for the week in this section

Unit 2 Lesson 1 Part 2



STEAM Journal Entry - reflect on two components of STEAM this week

- 1) How did we incorporate STEAM in class this week?
- 2) How did you use math outside of math class this week?



Week 7: 9/7 - 9/10

Links to/Photos of your work - include links or photos of all work for the week in this section

[Unit 2 Lesson 2](#)

[Unit 2 Lesson 4](#)

[Unit 2 Lesson 5](#)

[Unit 2 Lesson 3](#)

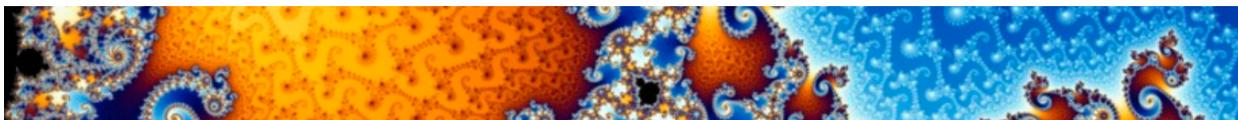
STEAM Journal Entry - reflect on two components of STEAM this week

1) How did we incorporate STEAM in class this week?

We used a graphing calculator to graph cosine wave functions.

2) How did you use math outside of math class this week?

Surprise Surprise I was in another argument. This time with my cousin. She claimed she watched 2 seasons of this one show in a single day. I had to do the math to see if that was believable because those episodes are long. I began by calculating the amount of minutes in the first season. The first episode was 67 minutes long while the rest averaged 42. So I added them together and got 277 minutes or 4 hours and 36 minutes. I then calculated the second season. The first episode was 62 minutes while the other 12 averaged 42 minutes. This was about 566 minutes or 9 hours. So the entirety of the first two seasons would've taken 14 hours to watch, not accounting for breaks. Granted these are the SHORTEST seasons. Still believable?



Week 8: 9/13 - 9/17

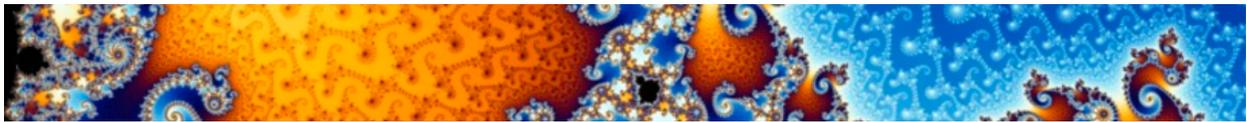
Links to/Photos of your work - include links or photos of all work for the week in this section

[Unit 2 Lesson 7](#)

STEAM Journal Entry - reflect on two components of STEAM this week

1) How did we incorporate STEAM in class this week?
Combining musical aspects with math when we explained frequencies in sine waves.

2) How did you use math outside of math class this week?
In Ms. In Mrs. Schaffer's class, we used math to determine the amount of representatives a state had based on the population of the state.



Week 9: 9/20 - 9/24

Links to/Photos of your work - include links or photos of all work for the week in this section

[Unit 3 Lesson 1](#)

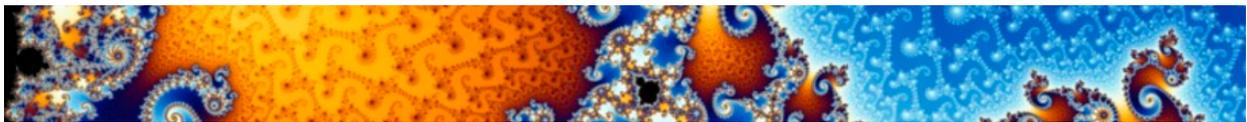
STEAM Journal Entry - reflect on two components of STEAM this week

1) How did we incorporate STEAM in class this week?

I used technology to complete my IXLs during the asynchronous wednesday.

2) How did you use math outside of math class this week?

Basically I'm trying to read Komi and Demon Slayer while watching Full metal alchemist. I've been trying to divide my time to dedicate decent amounts of time to each series. I would like to give about 2 hours a day to FMA while the remaining time and free periods during school would go to reading.



Week 10: 9/27 - 10/1

Links to/Photos of your work - include links or photos of all work for the week in this section

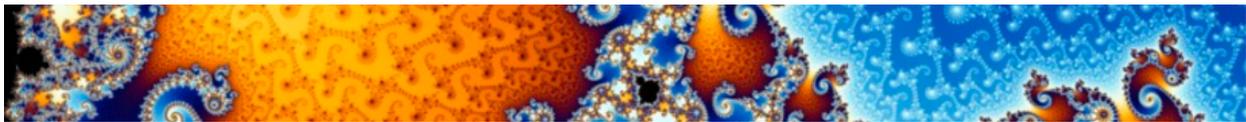
[Unit 3 Lesson 2](#)

[Unit 3 Lesson 3](#)

[Unit 3 Lesson 4](#)

STEAM Journal Entry - reflect on two components of STEAM this week

- 1) How did we incorporate STEAM in class this week?
- 2) How did you use math outside of math class this week?



Week 11: 10/11 - 10/15

Links to/Photos of your work - include links or photos of all work for the week in this section

[Unit 3 Lesson 5](#)

[Unit 3 GSE Temperature Task](#)

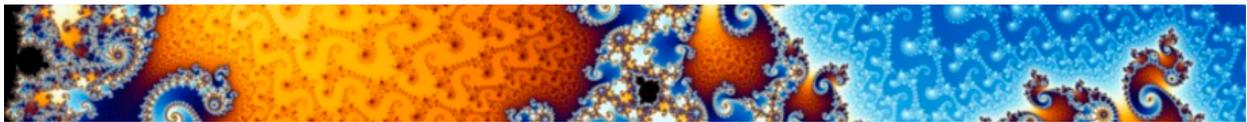
STEAM Journal Entry - reflect on two components of STEAM this week

2) How did we incorporate STEAM in class this week?

We used technology such as computers and programs to attend class on our Virtual Day.

2) How did you use math outside of math class this week?

I used math in biology to calculate the percentages of alleles in different experiment activities.

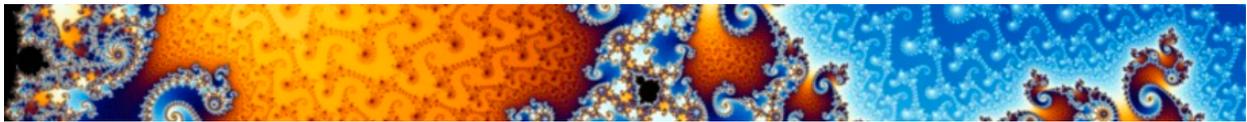


Week 12: 10/18 - 10/22

Links to/Photos of your work - include links or photos of all work for the week in this section

STEAM Journal Entry - reflect on two components of STEAM this week

- 1) How did we incorporate STEAM in class this week?
- 2) How did you use math outside of math class this week?

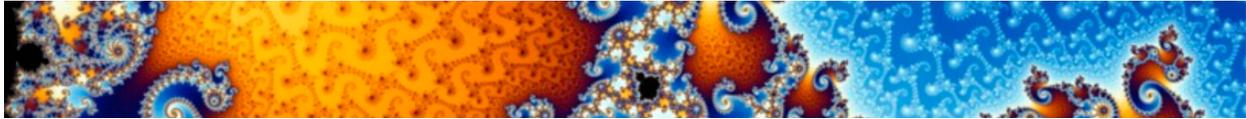


Week 13: 10/25 - 10/29

Links to/Photos of your work - include links or photos of all work for the week in this section

STEAM Journal Entry - reflect on two components of STEAM this week

- 1) How did we incorporate STEAM in class this week?
- 2) How did you use math outside of math class this week?

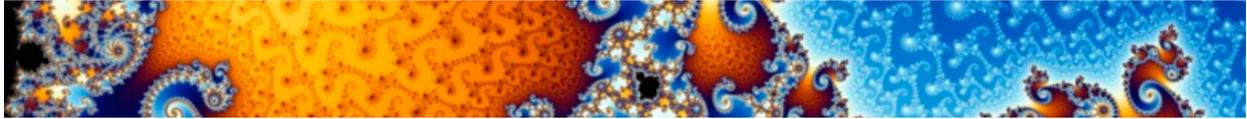


Week 14: 11/1 - 11/5

Links to/Photos of your work - include links or photos of all work for the week in this section

STEAM Journal Entry - reflect on two components of STEAM this week

- 1) How did we incorporate STEAM in class this week?
- 2) How did you use math outside of math class this week?



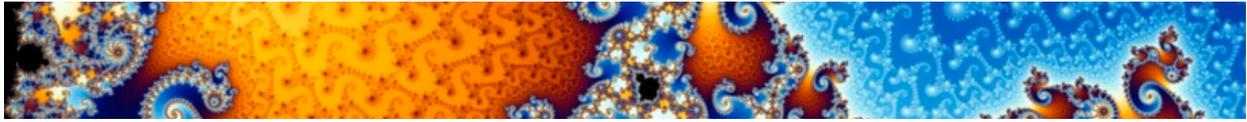
Week 15: 11/8 - 11/12

Links to/Photos of your work - include links or photos of all work for the week in this section

[Weather Report PrBL](#)
[Published Portfolio](#)

STEAM Journal Entry - reflect on two components of STEAM this week

- 1) How did we incorporate STEAM in class this week?
- 2) How did you use math outside of math class this week?

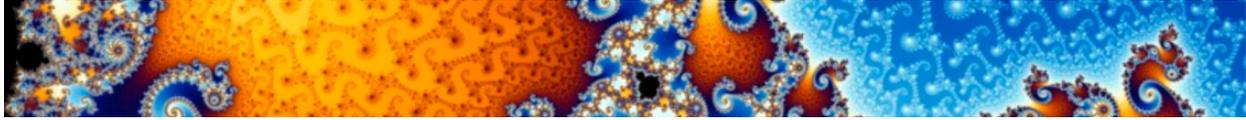


Week 16: 11/15 - 11/19

Links to/Photos of your work - include links or photos of all work for the week in this section

STEAM Journal Entry - reflect on two components of STEAM this week

- 1) How did we incorporate STEAM in class this week?
- 2) How did you use math outside of math class this week?

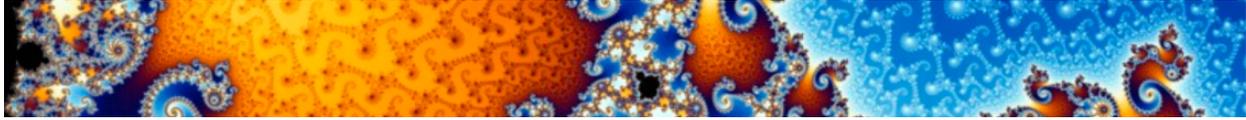


Week 17: 11/29 - 12/3

Links to/Photos of your work - include links or photos of all work for the week in this section

STEAM Journal Entry - reflect on two components of STEAM this week

- 1) How did we incorporate STEAM in class this week?
- 2) How did you use math outside of math class this week?

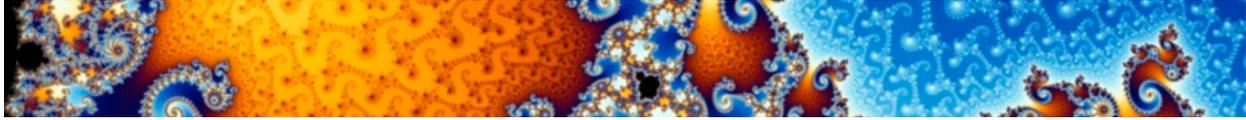


Week 18: 12/6 - 12/10

Links to/Photos of your work - include links or photos of all work for the week in this section

STEAM Journal Entry - reflect on two components of STEAM this week

- 1) How did we incorporate STEAM in class this week?
- 2) How did you use math outside of math class this week?

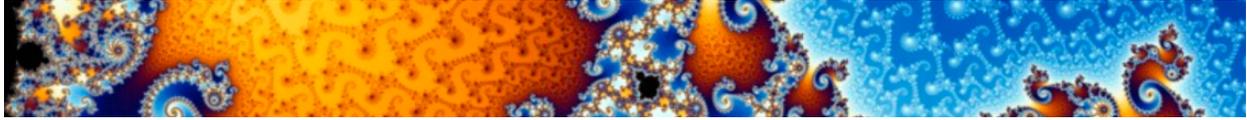


Week 19: 12/13 - 12/17

Links to/Photos of your work - include links or photos of all work for the week in this section

STEAM Journal Entry - reflect on two components of STEAM this week

- 1) How did we incorporate STEAM in class this week?
- 2) How did you use math outside of math class this week?



Week 1: 1/4 - 1/7

Links to/Photos of your work - include links or photos of all work for the week in this section

[Unit 5 Lesson 1](#)

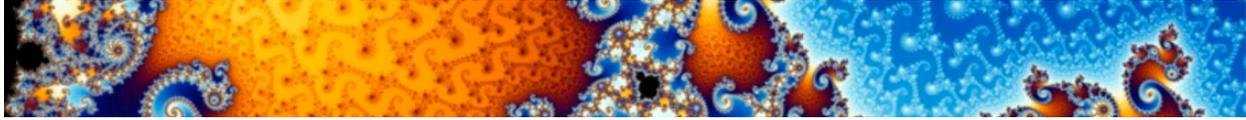
[Unit 5 Lesson 2](#)

STEAM Journal Entry - reflect on two components of STEAM this week

1) How did we incorporate STEAM in class this week?

We used technology to attend our classes through the zoom software

2) How did you use math outside of math class this week?



Week 2: 1/10 - 1/14

Links to/Photos of your work - include links or photos of all work for the week in this section

[Unit 5 Lesson 3](#)

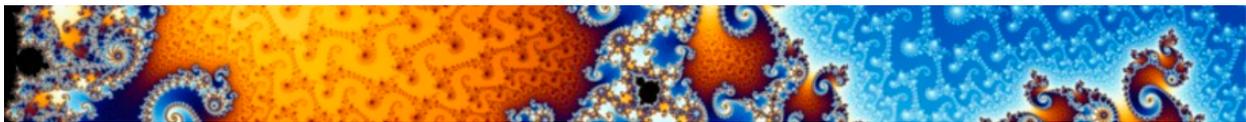
[Unit 5 Lesson 4](#)

[Unit 5 Lesson 5](#)

STEAM Journal Entry - reflect on two components of STEAM this week

1) How did we incorporate STEAM in class this week?
Once again, we used technology to attend our classes.

2) How did you use math outside of math class this week?
I used math outside of class while studying for the SAT.



Week 4: 1/24 - 1/28

Links to/Photos of your work - include links or photos of all work for the week in this section

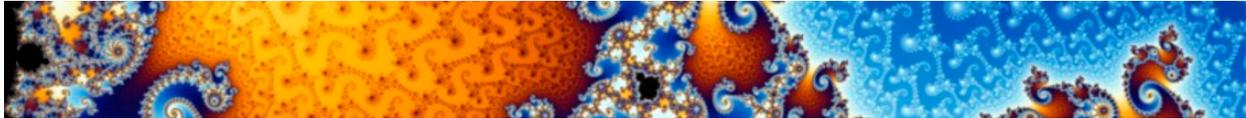
STEAM Journal Entry - reflect on two components of STEAM this week

1) How did we incorporate STEAM in class this week?

We used calculators to help us on the test.

2) How did you use math outside of math class this week?

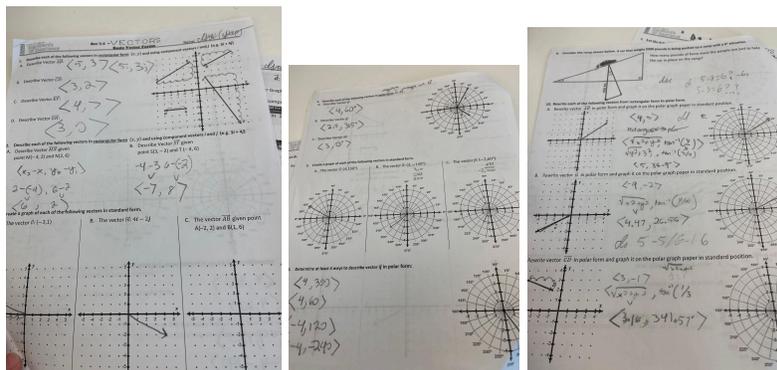
I used math for studying for the SAT on Khan Academy.



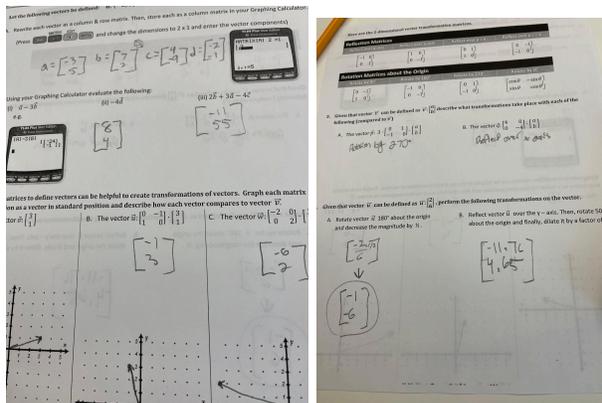
Week 5: 1/31 - 2/4

Links to/Photos of your work - include links or photos of all work for the week in this section

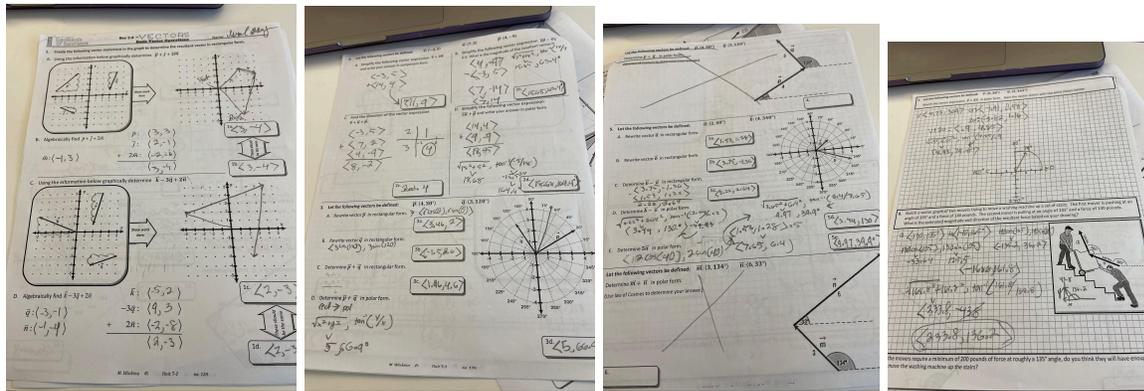
Unit 6 lesson 1



Unit 6 lesson 2



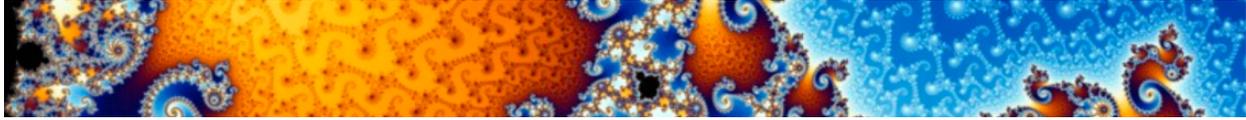
Unit 6 lesson 3



STEAM Journal Entry - reflect on two components of STEAM this week

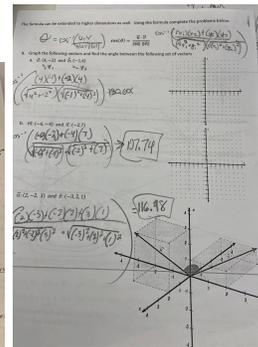
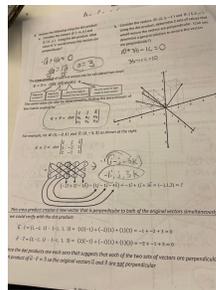
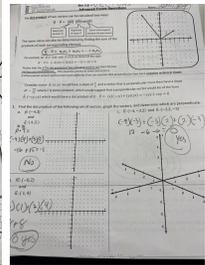
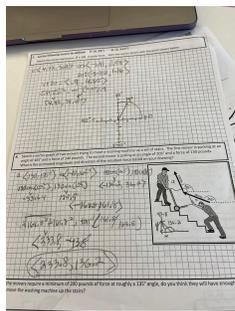
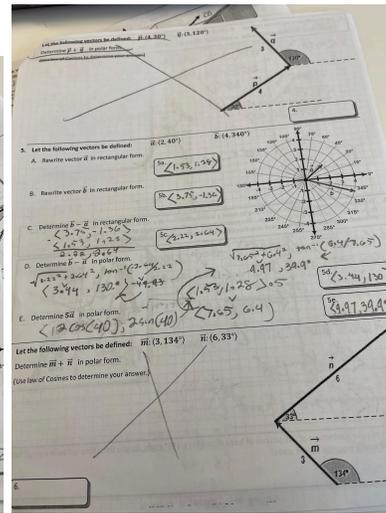
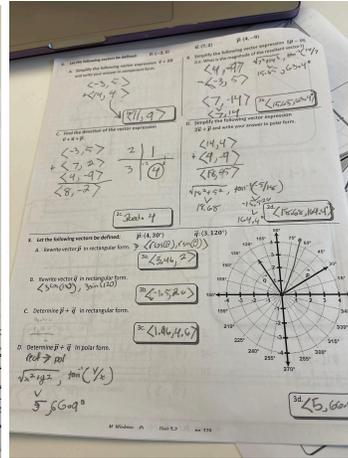
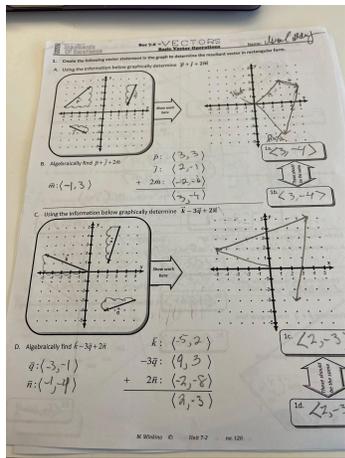
- 1) How did we incorporate STEAM in class this week?
It was explained that vertexes are often used in physics.

- 2) How did you use math outside of math class this week?
In APUSH, we did a farming simulation where we had to strategically invest in crops and livestock and calculate how much money we lost each year based on varying factors.



Week 6: 2/7 - 2/11

Links to/Photos of your work - include links or photos of all work for the week in this section



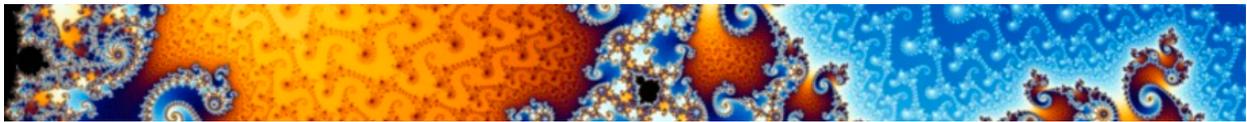
STEAM Journal Entry - reflect on two components of STEAM this week

1) How did we incorporate STEAM in class this week?
By linking our current lessons with physics and engineering.

2) How did you use math outside of math class this week?
We cooked in film class and that requires precise measurements and

time keeping.

A



Week 7: 2/21 - 2/25

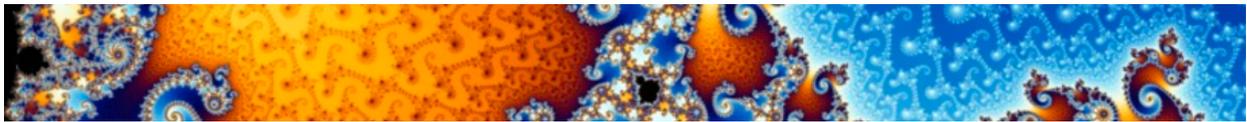
Links to/Photos of your work - include links or photos of all work for the week in this section

STEAM Journal Entry - reflect on two components of STEAM this week

1) How did we incorporate STEAM in class this week?
Some vertex scenarios can be related to physics and engineering.

2) How did you use math outside of math class this week?
In APUSH, we used the action of adding and subtracting casino chips to

finish an assignment.



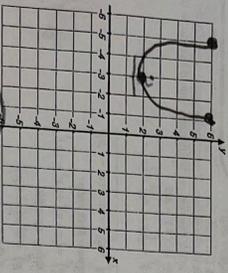
Week 8: 2/28 - 3/4

Links to/Photos of your work - include links or photos of all work for the week in this section

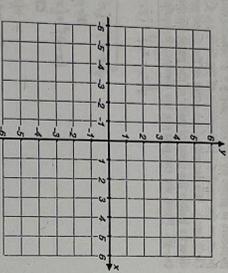
It turns out doing nearly the same thing for the vertex form of the parabola, $(y-k) = a(x-h)^2$ OR $(x-h) = a(y-k)^2$ we can show in a similar manner that the focus is located "inside the mouth" of the parabola a vertical distance of $\frac{1}{4a}$ from the vertex whereas the directrix is located the same distance away from the "vertex on the other side" of the parabola from the focus.

1. Sketch a graph the following Parabolas (Label the Vertex, Focus and Directrix)

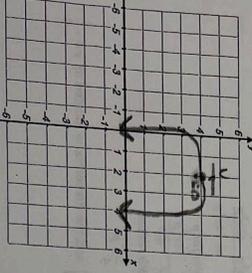
a. $(y-2) = \frac{1}{4}(x+3)^2$ \rightarrow $1/4$ focus distance
 vertex = $(-3, 2)$



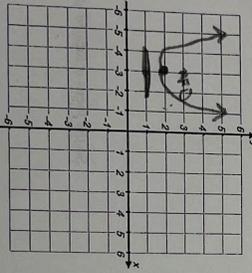
b. $(y+1) = \frac{1}{8}(x-4)^2$
 vertex = $(4, -1)$



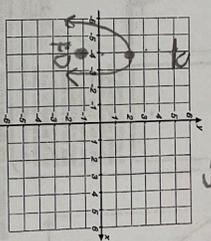
c. $(y-4) = -2(x-2)^2$
 vertex = $(2, 4)$



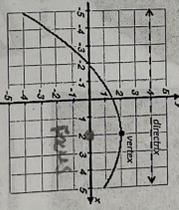
d. $(x+3) = \frac{1}{4}(y-2)^2$
 vertex = $(-3, 2)$



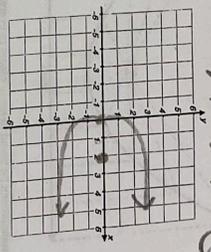
e. $(x+4) = -\frac{1}{12}(y-2)^2$



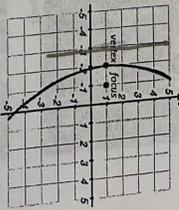
2. Find each of the requested components of a parabola.
 a. Given the vertex of a parabola is located at $(2, 2)$ and has a directrix of $y = 4$, find the location of the focus.



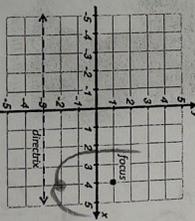
f. $y^2 = 8x$



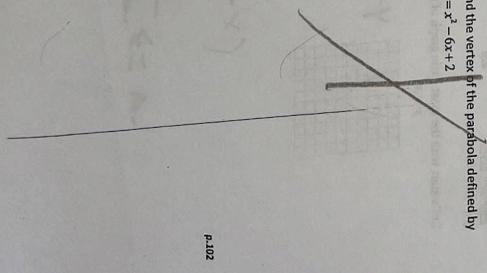
b. Given the vertex of a parabola is located at $(-2, 1)$ and has a focus at $(-1, 1)$, find the equation of the directrix.



c. Given the directrix of a parabola is $y = -3$ and a focus located at $(4, 2)$, find the location of the vertex. Which way does the parabola open?



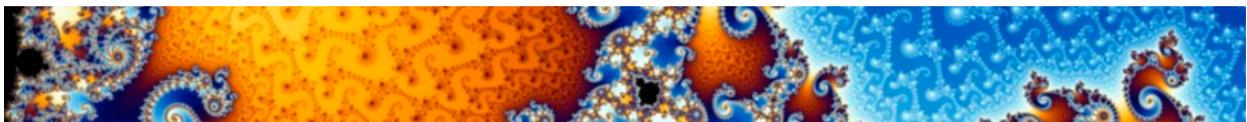
d. Find the vertex of the parabola defined by $y = x^2 - 6x + 2$



STEAM Journal Entry - reflect on two components of STEAM this week

1) How did we incorporate STEAM in class this week?

2) How did you use math outside of math class this week?



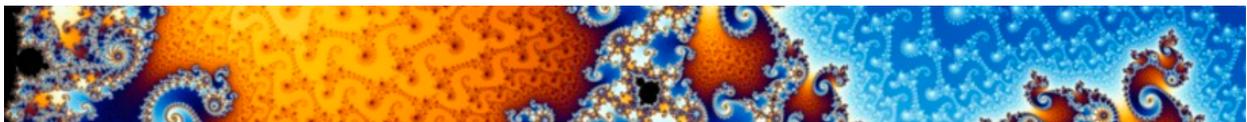
Week 9: 3/7 - 3/11

Links to/Photos of your work - include links or photos of all work for the week in this section

STEAM Journal Entry - reflect on two components of STEAM this week

1) How did we incorporate STEAM in class this week?

2) How did you use math outside of math class this week?



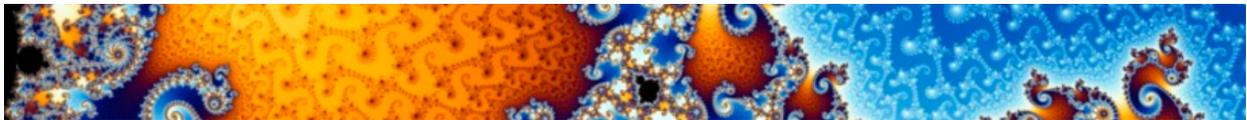
Week 10: 3/14 - 3/18

Links to/Photos of your work - include links or photos of all work for the week in this section

STEAM Journal Entry - reflect on two components of STEAM this week

1) How did we incorporate STEAM in class this week?

2) How did you use math outside of math class this week?



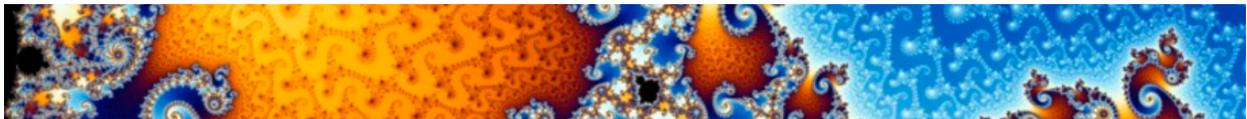
Week 11: 3/21 - 3/25

Links to/Photos of your work - include links or photos of all work for the week in this section

STEAM Journal Entry - reflect on two components of STEAM this week

1)How did we incorporate STEAM in class this week?

2) How did you use math outside of math class this week?



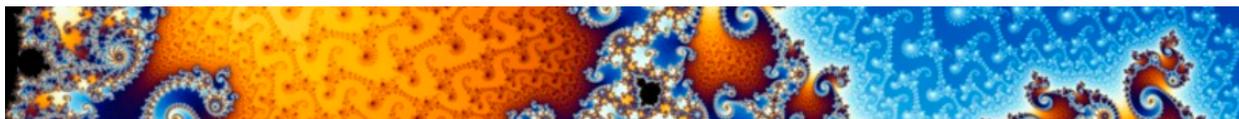
Week 12: 3/28 - 4/1

Links to/Photos of your work - include links or photos of all work for the week in this section

STEAM Journal Entry - reflect on two components of STEAM this week

1)How did we incorporate STEAM in class this week?

2) How did you use math outside of math class this week?



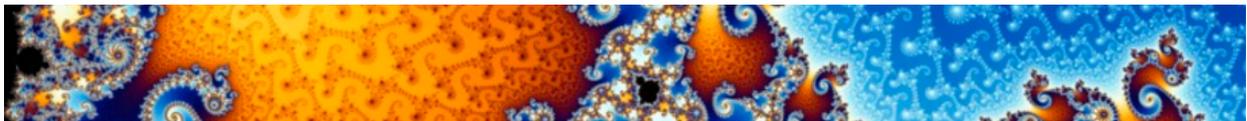
Week 13: 4/11 - 4/15

Links to/Photos of your work - include links or photos of all work for the week in this section

STEAM Journal Entry - reflect on two components of STEAM this week

1)How did we incorporate STEAM in class this week?

2) How did you use math outside of math class this week?



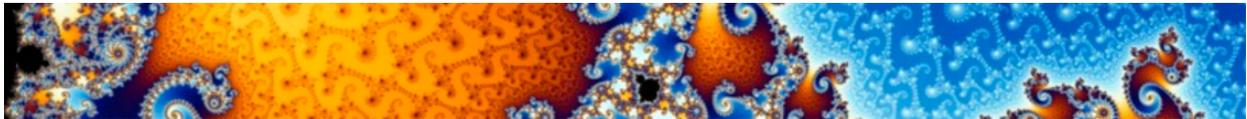
Week 14: 4/18 - 4/22

Links to/Photos of your work - include links or photos of all work for the week in this section

STEAM Journal Entry - reflect on two components of STEAM this week

1) How did we incorporate STEAM in class this week?

2) How did you use math outside of math class this week?



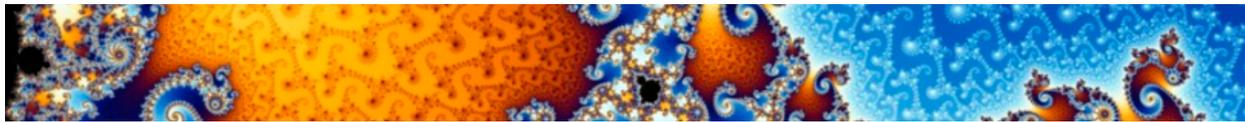
Week 15: 4/25 - 4/29

Links to/Photos of your work - include links or photos of all work for the week in this section

STEAM Journal Entry - reflect on two components of STEAM this week

1) How did we incorporate STEAM in class this week?

2) How did you use math outside of math class this week?

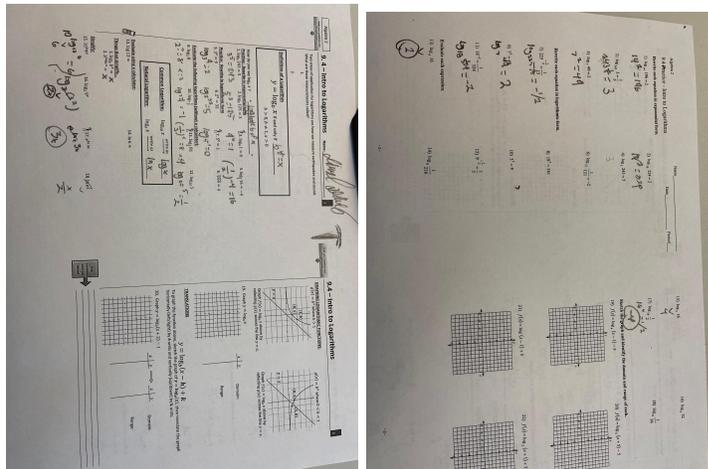


Week 16: 5/2 - 5/6

Links to/Photos of your work - include links or photos of all work for the week in this section

[9.3](#)

9.4:



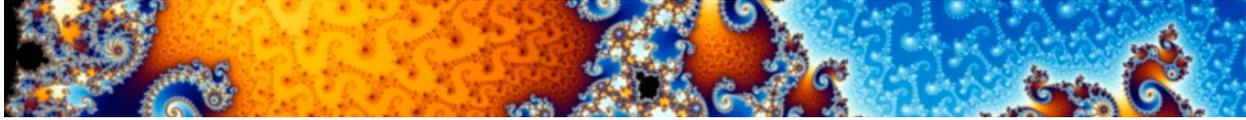
STEAM Journal Entry - reflect on two components of STEAM this week

1) How did we incorporate STEAM in class this week?

We used logarithms to relate our studies in class to areas of business like finance.

2) How did you use math outside of math class this week?

I used math to determine the times of when I was supposed to take my medicine because I was sick.



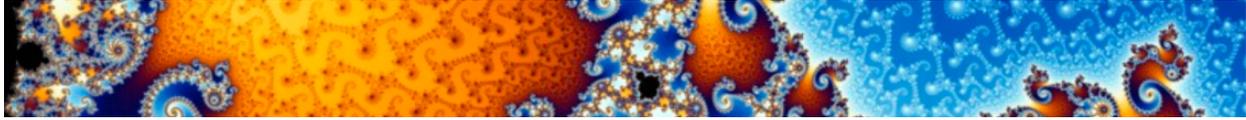
Week 17: 5/9 - 5/13

Links to/Photos of your work - include links or photos of all work for the week in this section

STEAM Journal Entry - reflect on two components of STEAM this week

- 1) How did we incorporate STEAM in class this week?

- 2) How did you use math outside of math class this week?



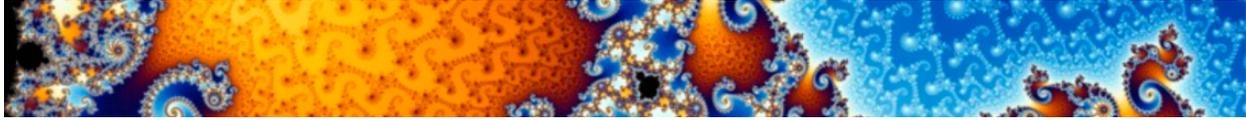
Week 18: 5/16 - 5/20

Links to/Photos of your work - include links or photos of all work for the week in this section

STEAM Journal Entry - reflect on two components of STEAM this week

- 1) How did we incorporate STEAM in class this week?

- 2) How did you use math outside of math class this week?



Week 19: 5/23 - 5/26

Links to/Photos of your work - include links or photos of all work for the week in this section

STEAM Journal Entry - reflect on two components of STEAM this week

- 1) How did we incorporate STEAM in class this week?

- 2) How did you use math outside of math class this week?