

Business Project-Chapter 7 project

You want to make money out of your house. Pick something that you could realistically make out of your house and sell online to clients. You are going to create two equations an equation that represents your costs with making this product and a second equation that represents your profit. They should both be linear equations. You need to be realistic with your numbers so take all of your expenses into account when creating that equation. You need to set a realistic price for this item and take shipping into account as well. After you have created these two equations you need to find their solution using substitution, elimination, graphs done on Desmos with screenshots as well as matrices solved on Desmos with screenshots. You will then need to explain what the solution means in terms of your business and future prospects. If you had not gotten a solution what would that have implied? Is this business idea something worth pursuing or not?

STEPS

1. What are you hoping to realistically produce? Explain why you are able to produce this in your home now.(5 pts)

I am wanting to create paintings from home. I am able to do this because it doesn't require a lot of things to do. I just need the materials to create the paintings and then sell them. Painting doesn't require me to leave my home, I just need the things to make the art.

Create two equations –Listing items and cost creates equations and then create them

Expense Equation (5 pts) $y=21.43x+422.98$

Profit Equation (5 pts) $y=25x$

Solve for the intersection of these two equations using substitution. (10 points)

$$25x=21.43x+422.98$$

Multiple by 100

$$2500x=2143x+42298$$

Subtract 2143

$$357x=42298 \text{ and then divide by } 357 = x=118.48$$

63.069

61.71

tion

422.98

134

$$y = 15.43x + 422.98$$

$$21.43x + 422.98$$

$$25x = 21.43x + 422.98$$

22.98

$$2500x = 2143x + 42298$$

$$x = 118.48 \quad 357x = \frac{42298}{357}$$

98 (2500)

$$3y = 0$$

$$00y = 1057450$$

7450

Solve for the intersection of these two equations using linear combination. (10 points)

$$y = 25x$$

$$x = 118.48 \quad 357x =$$

$$-25x + y = 0 \quad (9143)$$

$$-21.43x + y = 422.98 \quad (2500)$$

$$-53575x + 2143y = 0$$

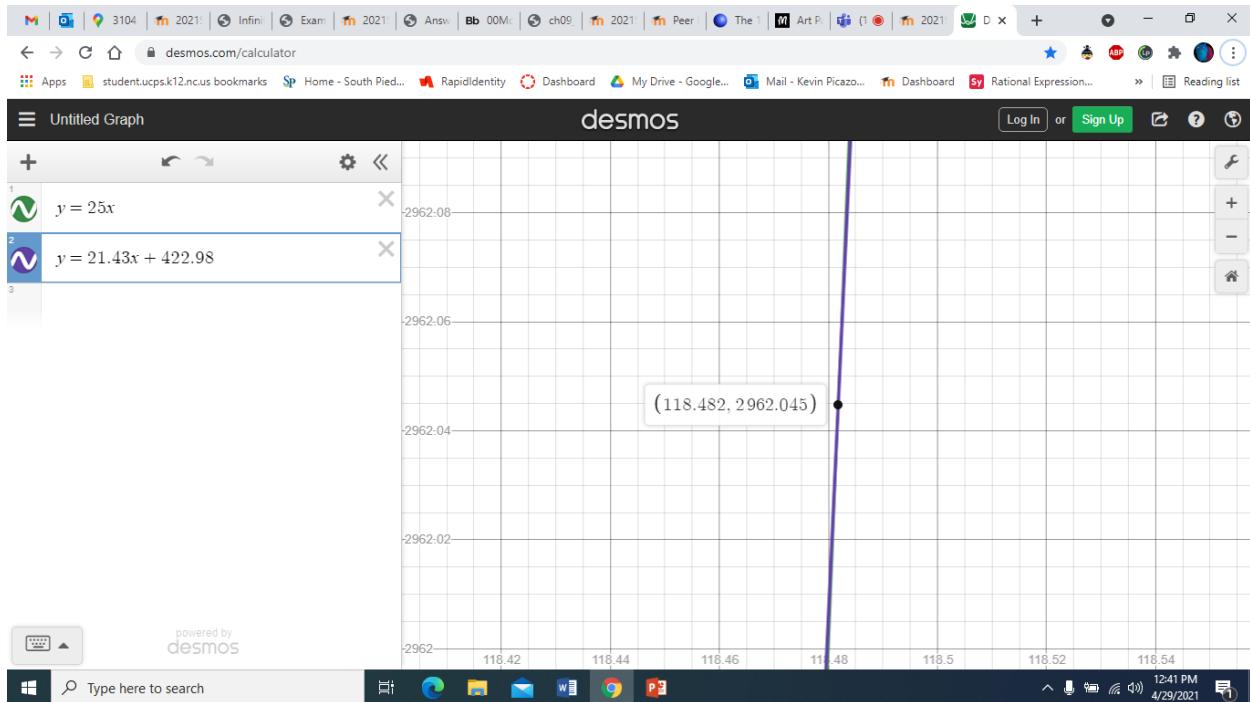
$$-53575x + 2500y = 1057450$$

$$y = \frac{1057450}{357} \quad 357x = 1057450$$

$$y = 2962.044$$

$$x = \frac{42298}{357} \quad x = 118.48$$

Solve these two equations using Desmos Graphing calculator and attach a screen shot of their intersection (10 points)



Solve these two equations using Desmos matrix calculator and attach a screen shot of the solution. (10 points)

desmos.com/matrix

$$A = \begin{bmatrix} -25 & 1 & 0 \\ -21.43 & 1 & 422.98 \end{bmatrix}$$

$\text{rref}(A) = \begin{bmatrix} 1 & 0 & 118.482 \\ 0 & 1 & 2902.04 \end{bmatrix}$

New Matrix

A	B	C	D
E	F	G	H
A^2	A^{-1}	A^T	A^n
rref	det	trace	

7 8 9 ÷

4 5 6 ×

1 2 3 +

0 . √ −

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Explain what the solution means in terms of your business and future prospects. (1 paragraph-15 points)

It means that I will be profiting by my 118th painting and then my profit will rise up instead of being in bankrupt. By profiting more on this business then that means I can become better and possibly buy more materials that can better my paintings that I am selling. With more profit the more I can grow and make a business and make better artworks than before. The more you make the more you can produce and the better the paintings can be. The solution also shows that it will take time to make profit. Making a lot of paintings takes time and effort for the business to be successful. Profit will grow but it will do it slowly.

If you had not gotten a solution what would that have implied? (1 paragraph-15 points)

It would mean that you aren't keeping up with what your making. You are making less money and you go bankrupt because you aren't surpassing on what you paying. Having no solution would mean that you are never making any money. Every business at first might have less money then their profits but with more products being sold and more people knowing about it, it can become better and finally you

are making money. Having no solution is very bad because you can't make money with what your buying to sell.

Is this business idea something worth pursuing or not? (1 paragraph-15 points)

It can be, but it would be a slow business idea. I will admit that it can become something big, but the time you have to make with every painting will take forever. You also have to be consistent with your work if not then you aren't making money. There are better products and business that can make profit faster and easier. Painting and selling them isn't the best because a artwork takes time for it to be finished and if you rush then the customer will not be pleased with the sloppy work you made. In my opinion, it wouldn't be a business idea worth pursuing but it could be just a side-job that can maybe make you money once in a while, but not the main income for the things you need.