Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Table #: \_\_\_\_\_ Period: \_\_\_\_ Date: \_\_\_\_\_\_

**CHAPTER 5 SYSTEMS OF EQUATIONS PROJECT**

|  |  |
| --- | --- |
| Complete Jet Ski or Moped (5 points) |  |
| Complete The T-Shirt Problem(5 points) |  |
| Complete 3 Examples of Word Problems (5 points) |  |
| Write your own word problems & turn it on time (5 points) |  |
| Systems of Equations in Standard Form Classwork (10 points) |  |
| Systems of Equations in Standard Form Homework (10 points) |  |
| Google Slides\_Use the requirement on the last page (50 points) |  |
| Presentation\_Use the requirement below (40 points) |  |
| Complete Peer Grading (20 points) student \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and student \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  |
| TOTAL (150 points) |  |



Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Table# \_\_\_\_\_ Per \_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Jet Ski or Moped\_Classwork**

(EXAMPLE FOR T-SHIRT PROBLEM)

Your uncle’s company is sending him to Hawaii in the springtime. He plans to be there for about a month and has asked you to join him for part of the time. Uncle Joe enjoys making things an educational experience so he has asked for you to plan out and budget some recreational activities for the time you are to join him there. Today you are to decide whether to rent a moped or a jet ski from Action Rentals in Waikiki Beach. Action Rentals charges two fees: a one-time rental charge and then a fee per day. They rent both mopeds and jet skis so you consider their prices. Mopeds cost $200 plus $25 per day. Jet Skis cost $100 plus $50 per day.

1. Describe the variable cost and the fixed cost for renting recreational vehicles. The variable cost VARIES based on the number of days you rent the vehicle. The fixed cost is only charged ONE TIME; you know exactly how much that cost will be, no matter how many days you rent the vehicle.

Variable Cost \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Fixed Cost \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Write an equation in slope intercept form that represents the relationship between the number of days you rent and the total cost.

Moped: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Jet Ski: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Find the point of intersection

Solution: \_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Make a table showing the number of days, x, and the total rental cost, y, based on the point of intersection

|  |  |  |
| --- | --- | --- |
| # of Days | Moped | Jet Ski |
| 0 |   |   |
|   |   |   |
|   |   |   |
|   |   |   |
|   |   |   |

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Table# \_\_\_\_\_ Per \_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**The T-Shirt Problem\_Classwork**

(Part 1 – Ch. 5 - Systems of Equations Project)

The members of the Marston Math Club want to raise money so they can go on a field trip. They decide to sell t-shirts with a logo to raise the money. The club found out that most places charge a fee to prepare the silk screen for the logo and a fee for each t-shirt imprinted with the logo. The following are two companies the club is considering doing business with: SD Shirt Company which charges $8 per shirt and $50 for the silk screen & T-Shirts Unlimited which charges $3 per shirt and $100 for the silk screen.

1. Describe the variable cost and fixed cost for getting t-shirts printed. The variable cost VARIES based on the number of shirts you buy. The fixed cost is only charged ONE TIME; you know exactly how much that cost will be, no matter how many shirts you buy.

Variable Cost \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Fixed Cost \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Write an equation in slope intercept form that represents the relationship between the number of t-shirts, x and the total cost, y.

SD Shirt Company \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ T-Shirts Unlimited \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

X represents \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Y represents \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Point of Intersection. (What is the solution of these two equations? Use the substitution method to find out where the graphs of these lines intersect. HINT: set the equations equal to each other.)
2. Using the x-coordinate of your intersection point as your middle x-value, create tables for both companies. The first x-value should always be zero.

|  |  |  |
| --- | --- | --- |
| # of T-Shirts | SD Shirt Co. | T-Shirts Unltd. |
| 0 |   |   |
|   |   |   |
|   |   |   |
|   |   |   |
|   |   |   |

Continued on back

1. Use your tables (or equations) to graph your results. Use the same set of axes for both graphs. Clearly label the point of intersection, each axis, and the graph of each line (Which line is SD Shirt Company? Which line is T-Shirts Unlimited?) BOTH OF THE GRAPHS SHOULD BE STRAIGHT LINES.

SOLUTION:

1. At what point do the graphs intersect? \_\_\_\_\_\_\_\_\_\_\_\_\_
2. If you are buying less than \_\_\_\_\_ t-shirts, you should buy them from \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
3. If you are buying more than \_\_\_\_\_\_ t-shirts, you should buy them from \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
4. If you buy \_\_\_\_\_\_ t-shirts, it would not matter if you bought the t-shirts at SD Shirt Company or T-Shirts Unlimited because the cost to be the same.
5. Interpret the slope. What does the slope MEAN in terms of buying t-shirts?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Interpret the y-intercept. What does the y-intercept MEAN in terms of buying t-shirts?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 

# Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Table # \_\_\_\_\_ Per \_\_\_ Date \_\_\_\_\_\_\_\_\_

# 3 Examples of Word Problems\_Classwork

# (Part 2 - Ch. 5 Systems of Equations Project)

DIRECTIONS: For each problem, (a) Identify the variable cost & the fixed cost, (b) Write the equations for each plan, (c) Find the point of intersection, and (d) List the five x-values you would use to create your table.

**CLASS EXAMPLE: THE T-SHIRT PROBLEM**

 The members of the Marston Math Club want to raise money so they can go on a field trip. They decide to sell t-shirts with a logo to raise the money. The club found out that most places charge a fee to prepare the silk screen for the logo and a fee for each t-shirt imprinted with the logo. The following are two companies the club is considering doing business with: SD Shirt Company which charges $4 per shirt and $320 for the silk screen & T-Shirts Unlimited which charges $12 per shirt and $160 for the silk screen.

a. Variable cost \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Fixed Cost \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Write an equation in slope intercept form that represents the relationship between the number of t-shirts, x, and the total cost of buying the t-shirts, y.

b. SD Shirt Company \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ T-Shirts Unlimited \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

c. Point of Intersection:

Solution: \_\_\_\_\_\_\_\_\_\_\_\_\_\_

d. List the x-values you would use to create your table: \_\_\_\_\_\_ \_\_\_\_\_\_\_ \_\_\_\_\_\_ \_\_\_\_\_\_ \_\_\_\_\_\_

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## **EXAMPLE 1: SENIOR CLASS TRIP PROBLEM**

*Clairemont High School is planning its Senior Class Trip. The students on the S.C.T. committee are still considering the length of the trip and the travel agency they will use. There are two costs involved: airfare and the cost of the hotel. The following are the prices provided by two local travel agencies: Fly-Away charges $60 per night for the hotel & $180 for airfare. SD Vacations charges $45 per night for the hotel & $240 for airfare.*

a. Variable cost \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Fixed Cost \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Write an equation in slope intercept form that represents the relationship between the number of nights in the hotel, x, and the total cost of the trip, y.

b. Fly-Away \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ SD Vacations \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

c. Point of Intersection:

Solution: \_\_\_\_\_\_\_\_\_\_\_\_\_\_

d. List the x-values you would use to create your table: \_\_\_\_\_\_ \_\_\_\_\_\_\_ \_\_\_\_\_\_ \_\_\_\_\_\_ \_\_\_\_\_\_

**EXAMPLE 2: TRUCK RENTAL PROBLEM**

*Billy needs to rent a large truck for one week. He is not sure exactly how far he has to drive or which rental company to choose. There are two costs involved in renting a 27-foot truck: an initial renting fee and a mileage fee. The following are prices for two local truck rental companies:*

*Trucks R Us charges $120 and $0.20 for each mile driven and Road King Rentals charges $180 & $0.10 for each mile driven.*

a. Variable cost \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Fixed Cost \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Write an equation in slope intercept form that represents the relationship between the number of miles driven, x, and the total cost of renting the truck, y.

b. Trucks R Us \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Road King \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

c. Point of Intersection:

Solution: \_\_\_\_\_\_\_\_\_\_\_\_\_\_

d. List the x-values you would use to create your table: \_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_

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**EXAMPLE 3: SKATE PARTY PROBLEM**

*Your parents have just told you that your grades were so good this year, they are going to treat you and your friends to a skate party. There are two places in the San Diego area that rent in-line skates and provide parties for a reasonable price.*

*The two places are:*

*Skate Land which charges $5.00 per person and*

*Roller World which charges $3.00 per person and a $20 fee for the party room.*

a. Variable cost \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Fixed Cost \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Write an equation in slope intercept form that represents the relationship between the number of people who attend the party, x, and the total cost of the party, y.

b. Skate Land \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Roller World \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

c. Point of Intersection:

Solution: \_\_\_\_\_\_\_\_\_\_\_\_\_\_

d. List the x-values you would use to create your table: \_\_\_\_\_\_ \_\_\_\_\_\_\_ \_\_\_\_\_\_ \_\_\_\_\_\_ \_\_\_\_\_\_

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Table# \_\_\_\_\_ Per \_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Systems of Equations in Standard Form (Ax+By=C)\_ Classwork**

1. Gabby and Sydney bought some pens and pencils. Gabby bought 4 pens and 5 pencils for $6.71. Sydney bought 5 pens and 3 pencils for $7.12. Find the cost of each.

ANSWER: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. At a sale on winter clothing, Cody bought two pairs of gloves and four hats for $43. Tori bought two pairs of gloves and two hats for $30. Find the cost of each.

ANSWER: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. A garden supply store sells two types of lawn mowers. The smaller mower costs $249.99 and the larger mower cost $329.99. If 30 total mowers were sold and the total sales for a given year was $8379.70, find how many of each type were sold.

ANSWER: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. The Town Recreation Department ordered a total of 100 baseballs and bats for the summer baseball camp. Baseballs cost $4.50 each and bats cost $20 each. The total purchase was $822. How many of each item was ordered?

ANSWER: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. A group of 40 children attended a baseball game on a field trip. Each child received either a hot dog or a bag of popcorn. Hot dogs were $2.25 and popcorn was $1.75. If the total bill was $83.50, how many hotdogs and bags of popcorn were purchased?

ANSWER: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Table# \_\_\_\_\_ Per \_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Systems of Equations in Standard Form (Ax+By=C)\_Homework**

1. The cost of 3 boxes of envelopes and 4 boxes of notebook paper is $13.25. Two boxes of envelopes and 6 boxes of notebook paper cost $17. Find the cost of each.

ANSWER: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. The cost of 12 oranges and 7 apples is $5.36. Eight oranges and 5 apples cost $3.68. Find the cost of each.

ANSWER: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. One night of theater sold 548 movie tickets. An adult’s ticket costs $6.50 and a child’s ticket cost $3.50. In all, $2881 was taken in. How many of each kind of ticket were sold?

ANSWER: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Adult tickets for the school musical sold for $3.50 and student tickets sold for $2.50. On a given night, 321 tickets were sold for $937.50. How many of each kind of ticket were sold?

ANSWER: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. A collection of dimes and nickels is worth $3.30. If there are 42 coins in all, how many of each kind of coin are there?

ANSWER: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Table# \_\_\_\_\_ Per \_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**CHAPTER 5 PROJECT (SYSTEMS OF EQUATIONS) REQUIREMENTS:**

* Clearly written word problem that includes a clear reason a choice needs to be made.
* Must have a choice between 2 options, plans companies, etc
* Equation written for each option that produces a point of intersection that has whole number coordinates
* Each option must have a variable cost and a fixed cost
* Must have a clear solution (based on point of intersection)
* INTERPRET the slope and y-intercept of each company. What does the slope MEAN in relation to your project? What does the y-intercept mean? You are NOT identifying their values. You are explaining what they mean.

### GOOGLE SLIDES REQUIREMENTS

Slide 1: Title Page (Title of your project, your name, period, date) – 5 points

Slide 2: Written word problem must be clearly stated and in complete sentences

(read details above) – 5 points

Slide 3: Equations – 10 points (5 points for the equations and 5 points for interpretation)

Include both of the equations and answer the following questions:

1. What does x-axis represent?
2. What does y-axis represent?
3. Interpretation of slope and y-intercept for each company, plan, etc.

Slide 4: Graph made in Google Sheets – 15 points

Clearly labeled x- and y-axis

Labeled and accurate intersection point

Labeled and accurate graphs of the data

Slide 5: Solution to problem – 15 points

 Show the work to the solution and answer the following questions:

1. When is one option better than the other?
2. When are your options the same?

(When does it not matter if you pick option 1 or option 2?)

Create your own equations – 10 extra credit points. If you do create your own equation, then include “I created my own equation” on the bottom of SLIDE 2.”

SHARE YOUR GOOGLE PRESENTATION to tcao@sandi.net

Sample equations that you may use or you can create your own equations.

1. $y=10x+120 and y=15x+100$
2. $y=50x+80 and y=40x+160$
3. $y=25x+150 and y=50x+50$
4. $y=5x+100 and y=9x+20$
5. $y=3x+10 and y=2x+25$
6. $y=2x+28 and 5x+10$
7. $y=20x+100 and y=10x+300$
8. $y=5x+10 and y=2x+40$
9. $y=80x+460 and y=70x+500$
10. $y=x+10 and y=2x+3$

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|  |
| --- |
| **HW – FIRST ATTEMPT: Write down your word problem here**Partner 1: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Partner 2: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Partner 3: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| **IN CLASS – Finalize your word problem after sharing it with your table** |

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_

Grader: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ **CH 5 Project Rubric**

 **3 pts 4 pts 5 pts**

**SCORE \_\_\_\_\_/40**

### GOOGLE SLIDES REQUIREMENTS

Slide 1: Title Page (Title of your project, your name, period, date) – 5 points

Slide 2: Written word problem must be clearly stated and in complete sentences

(read details above) – 5 points

Slide 3: Equations – 10 points (5 points for the equations and 5 points for interpretation)

Include both of the equations and answer the following questions:

1. What does x-axis represent?
2. What does y-axis represent?
3. Interpretation of slope and y-intercept for each company, plan, etc.

Slide 4: Graph made in Google Sheets – 15 points

Clearly labeled x- and y-axis

Labeled and accurate intersection point

Labeled and accurate graphs of the data

Slide 5: Solution to problem – 15 points

 Show the work to the solution and answer the following questions:

1. When is one option better than the other?
2. When are your options the same?

(When does it not matter if you pick option 1 or option 2?)

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**CH 5 Project (Using 3 Methods)**

150 points\_Due June 6, 2019

1. On a poster you will solve for a solution using ALL three methods (graphing, substitution, and elimination method).
2. Write a paragraph in which you will explain when it is best to use graphing method, when it is best to use substitution method, and when it is best to use elimination method. Provide detail explanations and examples.
3. Extra credit points (10 points): Write a word problem for your systems of equations

Use one of the systems of equations below to do your project.

1. $5x-y=-5 and 3x-6y=24$
2. $2x-3y=-12 and x+y=9$
3. $2x+y=-8 and 3x-5y=-25$
4. $2x+9y=27 and x-3y=-24$
5. $x-2y=8 and 8x+6y=42$

