**Unit 3 Linear Equations Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Day 5 Group Activity Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Hour: \_\_\_\_\_ Solving Systems Review**

1. Imagine that your friends are planning a wonderful vacation trip to the beach. You will need to rent a car and are comparing different prices.
* *Centerprise* charges a flat fee of $50 and an additional $2 per mile driven.
* *Wertz* charges a flat fee of $70 and an additional $1 per mile driven.

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1. Write equations to model the cost of renting a car from:*Centerprise*

*Wertz*  |

|  |  |
| --- | --- |
| X | Y |
| 0 |  |
| 10 |  |
| 20 |  |
| 30 |  |

1. Complete a table of values for each equation.

 CENTERPRISE WERTZ

|  |  |
| --- | --- |
| X | Y |
| 0 |  |
| 10 |  |
| 20 |  |
| 30 |  |

 |
| 1. Graph the equations on the same graph.

Use two different colors. | 1. Estimate the intersection by looking at the graph.
2. What does the intersection represent? Use a complete sentence.
3. Verify the solution algebraically. Does it make sense?

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1. For how many miles would it be better to rent from Wertz? For Centerprise?

**Use a system of equations to model each situation. Solve by any method.**

 **2.** The sum of two numbers is 30. The sum of the larger number and three times the smaller number is 54. Find the numbers.

 **3.** Shopping at Savers Mart, Lisa buys her children four shirts and three pairs of pants for $85.50. She returns the next day and buys three shirts and five pairs of pants for $115.00. What is the price of each shirt and each pair of pants?

**4.** An amusement park charges admission plus a fee for each ride. Admission plus two rides costs $10. Admission plus ﬁve rides cost $16. What is the charge for admission and the cost of a ride?

**Homework**: Unit 3 Day 1 – 5 Review Packet