Systems of Equations - Day 4
Handy Man

Name $\qquad$
Date $\qquad$ Period $\qquad$

## Handy Man

Builder Bill rents a heavy-duty saw from Quality Rentals for $\$ 6$ an hour plus a non-refundable deposit of $\$ 18$. Builder Beth rents a saw from Junk Yard Rentals for $\$ 12$ an hour.

1. Write an equation for each company representing the relationship between the number of hours the tool was rented and the cost to rent the saw.

## Quality Rentals

$\qquad$ Junk Yard Rentals $\qquad$
2. Make a table to show the relationship between the number of hours for the rental and the cost of the rental.

Quality Rentals

| Hours | Process | Cost |
| :---: | :---: | :---: |
| 0 |  |  |
| 1 |  |  |
| 2 |  |  |
| 3 |  |  |
| 4 |  |  |

Junk Yard Rentals

| Hours | Process | Cost |
| :---: | :---: | :---: |
| 0 |  |  |
| 1 |  |  |
| 2 |  |  |
| 3 |  |  |
| 4 |  |  |

3. Graph the equations using the graph below. Be sure to label the independent and dependent variable.

$\qquad$
$\qquad$
4. Describe the slope of each equation and explain what the slope represents in terms of this situation?
5. Describe the $y$-intercept of each equation and explain what the $y$-intercept represents in terms of this situation?
6. Which company offers the better price for renting the saw? Justify your answer.
7. What is the solution to this system of equations? $\qquad$
A. What does this solution represent on the graph? What does the solution represent in this situation?
8. Which company's graph includes the point $(7,60)$ ? What does this point represent in terms of renting the saw?
9. If Bill intended to use the saw from 8am to 5pm, which company should he rent from to spend the least amount of money? How much would he have to spend?
10. Quality Rentals decided to lower their deposit by \$6. How does this affect the situation and the solution to the system?
