Unit 3 Review Guide

**Write the equation of the following lines:**

1. A line that passes through the points (3, 4) and (5, -2).
2. A line that passes through the points (-7. -9) and (12, 14).
3. A line with a slope of ½ and a y-intercept of 6.
4. A line with a slope of 2 and that passes through the point (3, 4).
5. A line with a slope of ¾ and that passes through the point (-1, -5).
6. The equation of the line on the graph below:

 

**Write the equations that represent the following scenarios**:

1. Mrs. Jordan’s phone bill decreased by $10 and is now $268.
2. Johnathan started a savings account and deposited $200. Each week, he deposits $20 into his account. Write an equation in slope-intercept form that represent the balance of Johnathan’s savings account after x number of weeks.
3. Graph the equation y = 4x + 5.



1. Write the equation for the table below:

|  |  |
| --- | --- |
| x | Y |
| -2 | 5 |
| 0 | 10 |
| 2 | 15 |
| 4 | 20 |
| 6 | 25 |

**Find the average rate of change for the following situations:**

1. If Johnathan had started with $500 in his savings account the first week and then he had $700 the fifth week, what would his rate of change be for his savings account?
2. Stan is driving to Savannah. He drove 250 miles in 4 hours and 400 miles in 6 hours. What is his average rate of change?

**Solve the following equations:**

1. Tasha joined Get Fit Gym last week. Her initial fee was $50 and she has to pay $25 a month for membership. How much would Tasha pay if she prepaid for a 1-year membership?
2. Melissa pays $125 a month for her cable, plus $2 for each movie or game she rents through her On Demand service. How much would she pay this month if she rents 14 movies?