1. Identify the Domain, Range, if it’s a function and is it 1 to 1 for the following.

 a. b.  c.

2. Determine if the following data is arithmetic, if it is write a recursive formula

 a. 4,12,20,28,… b. 6,2.5,-1,-4.5,… c. 13,18,24,29,…

3. Given  find a.  b. 



4. Use the following scatter plot to do the following.

 a. What type of association does it show?

 b. Draw a trend line.

 c. Find an equation for your trend line. Circle the two points you are using to

find your equation.

5. Given the line of best fit equation is  what would the residual be if  is a point on the graph?

6. You rent a bike and have to pay $6.50 for the first hour, if you rent it for two hours your total cost is $9.00, if you rent it for 3 hours your total cost is $11.50.

 a. Write a recursive formula modeling the price of a bike per hour

 b. Write an explicit formula modeling the price of a bike per hour

 c. Using your explicit formula find how much the bike would cost if you rent it for 7 hours.

7. Given a.  b. 

 1. find the first 5 terms 1. find the first 5 terms

 2. write the explicit formula 2. write the recursive formula

8. In his piggy bank, Batman dropped $1.00 on October 1, $1.75 on October 2, $2.50 on October 3 and so on until the last day of October.

 a. Write an explicit formula modeling the amount of money he deposits on each day.

 b. How much money will he put in his piggy bank on Halloween?

9. Gina sells tickets. Each day she earns a set amount, plus a commission. Write a linear function ** to determine Gina’s pay.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Tickets** | 1 | 2 | 3 | 4 | 5 |
| **Total Pay** | 68 | 75 | 82 | 89 | 96 |

1. Write a linear function modeling this data
2. How much money will she make if she sells 15 tickets?
3. Is this interpolation or extrapolation?