Sequences Review

1. A bacteria colony starts with 3 bacteria and doubles every hour. Write an explicit equation to model this situation.

2. Given identify the common ratio (r) and indicate if the function is growing or declining.

3. Three bacteria land on the counter and starts growing by a factor of 5 every hour. After how many hours will the number of bacteria exceed 500?

4. Convert the recursive formula with to an explicit equation.

5. Write a recursive formula for the equation:

6. An initial value of a vehicle is $12,500 and is decreasing by 5% yearly. Write an explicit equation to model this situation.

From the following two tables, choose **A** for **Arithmetic** or **G** for **Geometric** or **N** for **Neither** in the space provided. Then write the explicit and recursive rule.

1. \_\_\_\_\_\_\_\_\_\_\_\_ 10. \_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |
| --- | --- |
| Term Number | Value |
| 1 | 625 |
| 2 | 125 |
| 3 | 25 |
| 4 | 5 |

|  |  |
| --- | --- |
| Term Number | Value |
| 0 | 10 |
| 1 | 4 |
| 2 | -2 |
| 3 | -8 |

11. Recursive:

12. Explicit:

8. Recursive:

9. Explicit: