**Extra Practice Homework**

**Using a Variable to Describe a Pattern**

1. For each table, write an expression (or equation) to represent the pattern
2. Completed the table

|  |  |  |
| --- | --- | --- |
| **Number of days** | **Height of plant (cm)** | **Equation** |
| 1 | 5 |  |
| 2 | 6 |  |
| 3 | 7 |  |
| 4 | 8 |  |
| 5 | 9 |  |
|  |  |  |
|  |  |  |

1. What is the equation? (Hint- this is what you just figured out in the table)

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Using the equation, find the height of the plant on day 7 \_\_\_\_\_\_\_\_\_\_\_\_
2. Using the equation, find the height of the plant on day 20 \_\_\_\_\_\_\_\_\_\_\_\_
3. Using the equation, find the height of the plant on day 854 \_\_\_\_\_\_\_\_\_\_\_
4. For each table, write an expression (or equation) to represent the pattern
5. Completed the table

|  |  |  |
| --- | --- | --- |
| **Term Number** | **Value** | **Equation** |
| 1 | 37 |  |
| 2 | 38 |  |
| 3 | 39 |  |
| 4 | 40 |  |
| 5 | 41 |  |
|  |  |  |
|  |  |  |

1. What is the equation? (Hint- this is what you just figured out in the table)

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Using the equation, find the 8th term \_\_\_\_\_\_\_\_\_\_\_\_
2. Using the equation, find the 22nd term \_\_\_\_\_\_\_\_\_\_\_\_
3. Using the equation, find the 123rd term \_\_\_\_\_\_\_\_\_\_\_\_
4. Write an expression for the number pattern.

45, 46, 47, 48, 49, … \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 Find the 7th term in this pattern \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 Find the 75th term in this pattern \_\_\_\_\_\_\_\_\_\_\_\_\_\_

*SHOW YOUR WORK HERE!!*

|  |  |
| --- | --- |
| **Term Number** | **Value** |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

1. Write an expression for the number pattern.

18, 17, 16, 15, 14, … \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Find the 8th term in this pattern \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Find the 11th term in this pattern \_\_\_\_\_\_\_\_\_\_\_\_\_\_

*SHOW YOUR WORK HERE!!*

|  |  |
| --- | --- |
| **Term Number** | **Value** |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |