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**Writing Expressions to Model Patterns (Table/Pictorial → Symbolic)**

**Name:**

**Date:**

**Vocabulary Review:**

In your own words, define each of the following vocabulary terms.

- Expression
  
- Additive Relationship
  
- Multiplicative Relationship

**Apply New Learning:**

1. What strategies can be used to organize data in a table?
  
  
  
  
  
  
  
  
  
  
2. How is a geometric sequence different from an arithmetic sequence?

3. Create a table of values to represent the pattern below.



Diagram 1

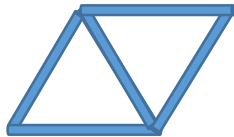


Diagram 2

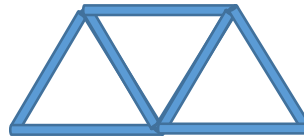


Diagram 3

 = straw

4. Write an expression to represent the number of straws for any diagram,  $d$ , in this geometric pattern.

5. Create a graph of the data from the table.

6. Predict the number of straws you would need for Diagram 10.