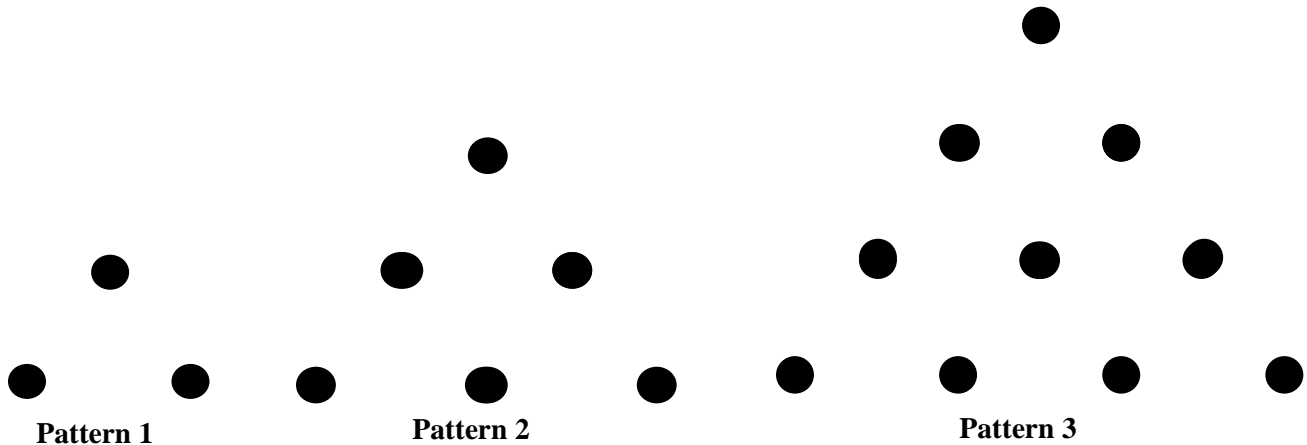


## Tri-Triangles

### Level D

Jo constructs triangular patterns using dots.



The pattern continues in the same geometric design.

How many dots are needed to make Pattern 5?

How many dots are needed for the  $n$ th pattern?

Explain your rule.

Jo was born in 1953, and she was wondering if she could make a triangular pattern out of exactly 1,953 dots. If she could, what would the pattern number be? Explain your reasoning.

