

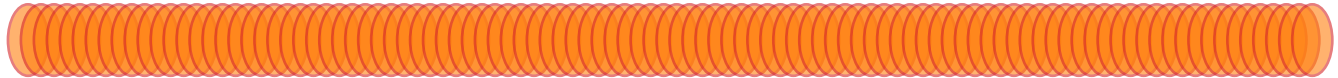
# Extreme Case 2: Full Search Space

*Vocabulary size = 100, explore ALL paths*

Step 0: 1 nodes



Step 1: 100 nodes



Step 2: 10,000 nodes



Step 3: 1M nodes



Step 4: 100M nodes



**Total paths:  $100^5 = 10$  billion**

**If 1  $\mu$ s per path:  
10 billion  $\times$  1  $\mu$ s = 2.8 hours**

**If 1 ms per path:  
10 billion  $\times$  1 ms = 115 days!**