

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 μ s per path:
 10 billion \times 1 μ s = 2.8 hours

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