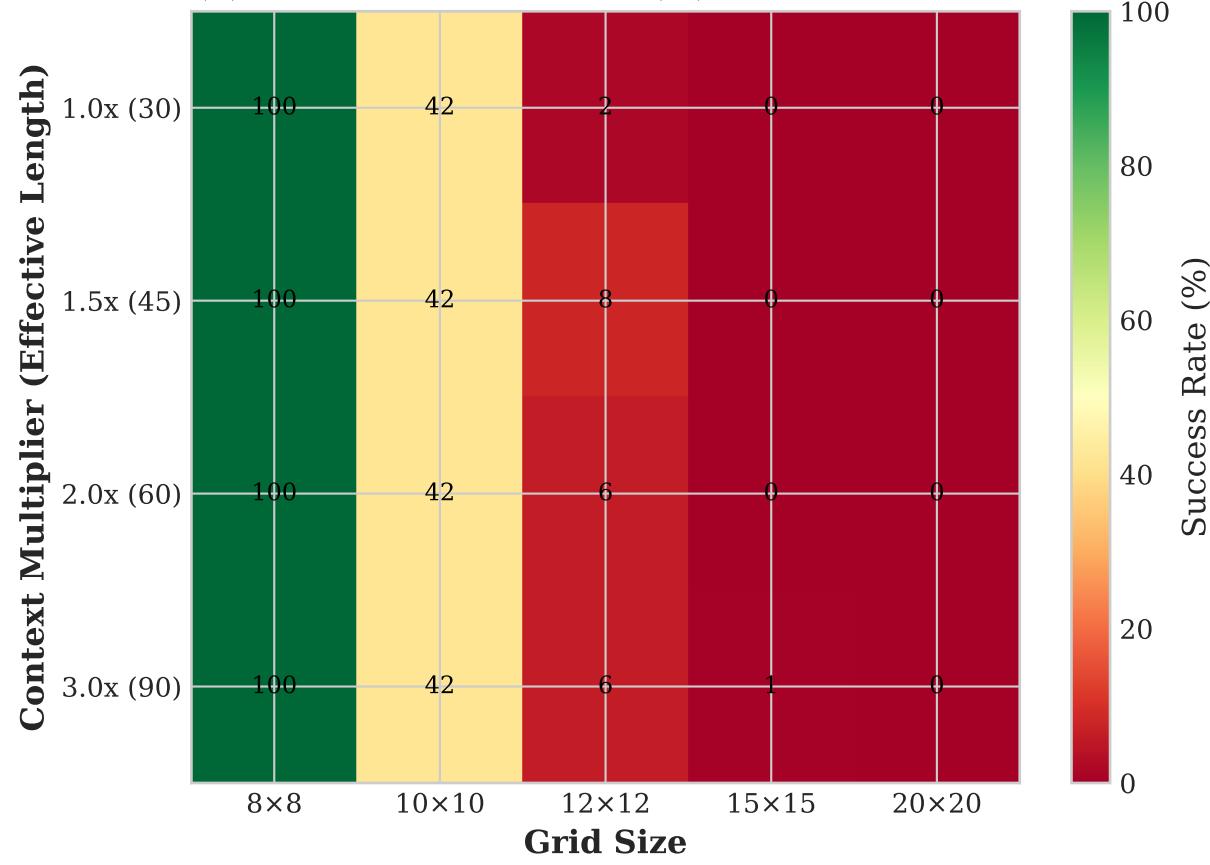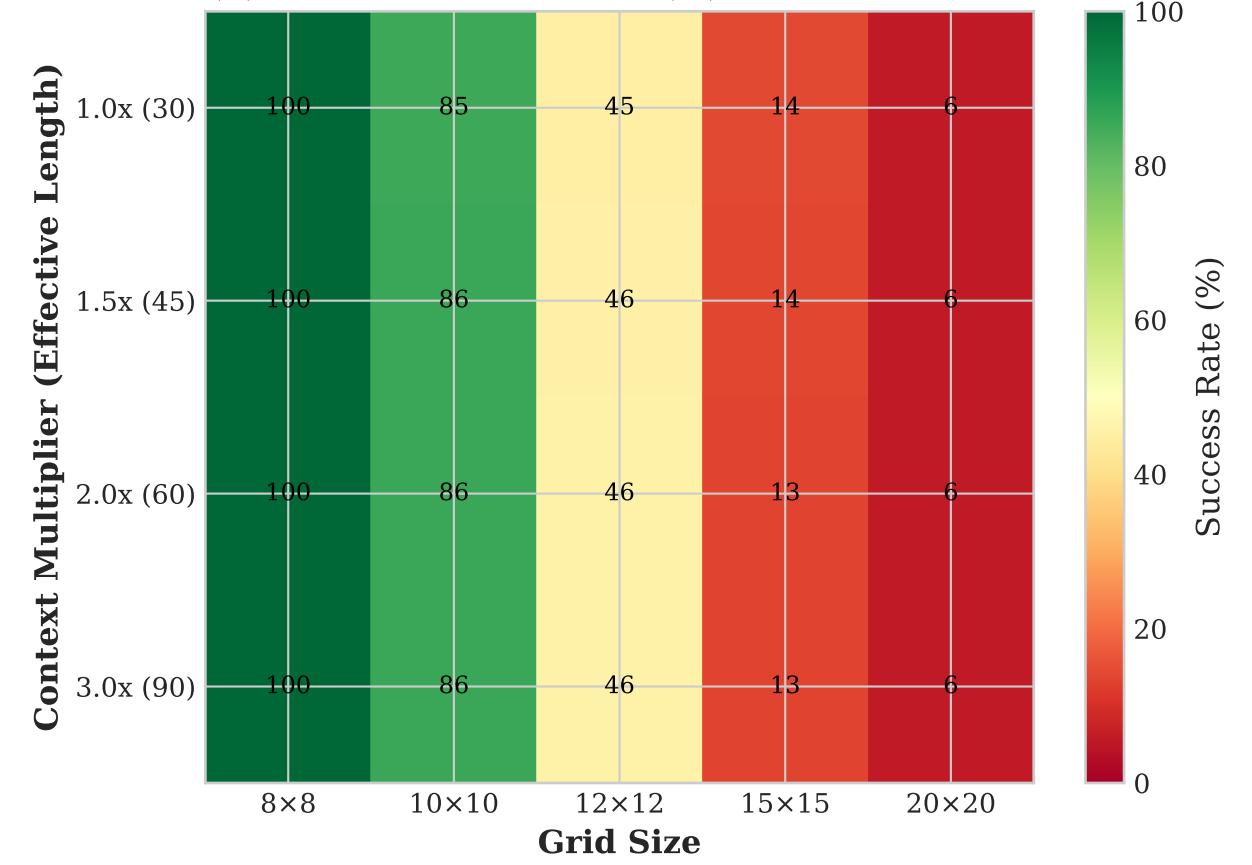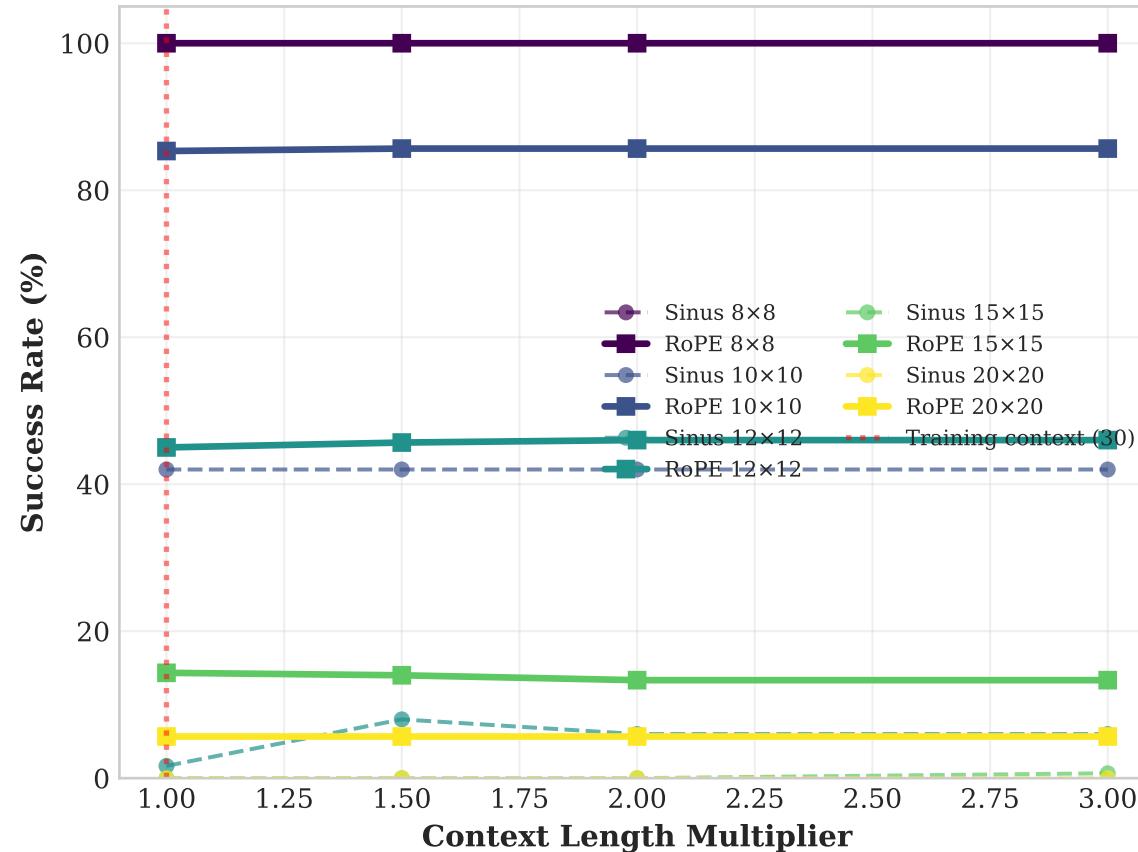**Context Length Scaling Analysis: Sinus vs RoPE**

(a) Sinus Success Rate (%)

(b) RoPE Success Rate (%)

(c) Context Scaling Curves by Grid Size

(d) RoPE vs Sinus Performance Gap