

A quantum circuit diagram. At the top, there are six vertical lines representing qubits. A blue-outlined rectangular box contains the expression  $\langle n^{l/2}, r, n^{l/2} \rangle$ . Below this box, there are two CNOT gates. The first CNOT has its control on the first four qubits and its target on the fifth qubit. The second CNOT has its control on the last four qubits and its target on the first qubit. The qubits are labeled  $A^{(1)}$  through  $A^{(6)}$  at the bottom.

$$\langle n^{l/2}, r, n^{l/2} \rangle$$

$A^{(1)}$

$A^{(2)}$

$A^{(3)}$

$A^{(4)}$

$A^{(5)}$

$A^{(6)}$