

# *My Heroes Have Always Been Cowboys*

$$1 = C$$

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[illegible]

The diagram illustrates the evolution of a quantum state across four stages, separated by vertical lines. Each stage shows a horizontal bar representing the state, with labels indicating the number of qubits and the state components.

- Stage 1:** A single qubit in state  $|4\rangle$ .
- Stage 2:** A 4-qubit state with four  $|4\rangle$  components.
- Stage 3:** A 6-qubit state with components  $|4\rangle$ ,  $|1\rangle$ ,  $|1\rangle$ , and  $|6\rangle$ .
- Stage 4:** A 6-qubit state with components  $|4\rangle$ ,  $|1\rangle$ ,  $|1\rangle$ , and  $|6\rangle$ .

Diagram illustrating a sequence of numbers (4, 4, 4, 5, 4, 2, 1, 1) across a horizontal axis with vertical grid lines. The numbers are represented by light blue bars. Below the axis, the label  $b_7$  is positioned under the first '4', and the number 4 is positioned under the first '1'.

<p>2</p> <p>4 4</p> <p>2</p> <p><math>b_7</math></p>	<p>5</p> <p>4 4 4</p>	<p>2</p> <p>1 1</p> <p>4</p>	<p>6</p> <p>4 4 4</p> <p><math>b_7</math></p>
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<p>6</p> <p>1 1</p> <p>4</p>	<p>5</p> <p>6</p> <p>5</p> <p><math>1^7</math></p>	<p>4</p> <p>4</p>	<p>4</p>
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<p>4</p> <p>2</p> <p><math>b_7</math></p>	<p><math>b_6</math></p> <p>5</p> <p>4 4</p>	<p>6</p> <p>6</p> <p>4</p>	
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<p>5 5</p> <p>5</p> <p>6</p> <p>5</p> <p>5</p> <p><math>5^7</math></p>	<p>5</p> <p>5</p> <p><math>1^7</math></p>		
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<p>%</p> <p>4</p> <p>2</p> <p><math>b_7</math></p>	<p>5</p> <p>4</p>	<p>2</p> <p>1 1</p> <p>4</p>	<p>6</p> <p>5</p> <p>4</p> <p>5</p> <p><math>b_7</math></p>
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<p>6</p> <p>1 1</p> <p>4</p>	<p>5</p> <p>6</p> <p>5</p> <p><math>1^7</math></p>	<p>1.</p> <p>4</p> <p>4</p>	<p>]</p> <p>:</p> <p>:</p> <p>]</p>
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<p>2.</p> <p>4</p> <p><math>b_7</math></p>	<p><i>Fine</i></p> <p>4</p>
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*D.S. al Fine*