

```
Initial state: 1.0|0> + 0.0|1>
Final state: 1.0|0> + 0.0|1>
Percentage of 0's measured: 1.0
Percentage of 1's measured: 0.0

Initial state: 0.0|0> + 1.0|1>
Invalid Operator.

Initial state: 1.0|0> + 0.0|1>
Final state: 0.7071067811865475|0> + 0.7071067811865475|1>
Percentage of 0's measured: 0.5
Percentage of 1's measured: 0.5

Initial state: 0.0|0> + 1.0|1>
Final state: 0.0|0> + -0.9999999999999998|1>
Percentage of 0's measured: 0.0
Percentage of 1's measured: 1.0

Initial state: 0.6|0> + 0.8|1>
Final state: 0.7999999999999998|0> + 0.5999999999999999|1>
Percentage of 0's measured: 0.5
Percentage of 1's measured: 0.5

Initial state: 0.7071067811865475|0> + 0.7071067811865475|1>
Final state: 0.0|0> + 0.9999999999999998|1>
Percentage of 0's measured: 0.0
Percentage of 1's measured: 1.0

Invalid probability amplitude(s).

In [388]:
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