Grover’s algorithm

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Grover’s algorithm alternates the operations $R|x_0\rangle$ and $R|+\perp\rangle$, where $|+\perp\rangle$ is a state orthogonal to $|+\rangle$ in the 2d space span${|x_0\rangle, |+\rangle}$. 
Grover’s algorithm alternates the operations $R|_{x_0}\rangle$ and $R|_{+\perp}\rangle$, where $|_{+\perp}\rangle$ is a state orthogonal to $|_{+}\rangle$ in the 2d space \text{span}\{|_{x_0}\rangle, |_{+}\rangle\}.

The composition of two reflections is a rotation:
Grover’s algorithm alternates the operations $R_{|x_0\rangle}$ and $R_{|+\perp\rangle}$, where $|+\perp\rangle$ is a state orthogonal to $|+\rangle$ in the 2d space span\{|$x_0\rangle$, $|+\rangle$\}.

The composition of two reflections is a rotation:
Grover’s algorithm alternates the operations $R|x_0\rangle$ and $R|+\perp\rangle$, where $|+\perp\rangle$ is a state orthogonal to $|+\rangle$ in the 2d space span$\{|x_0\rangle, |+\rangle\}$.

The composition of two reflections is a rotation:
\[ |+\rangle \quad |x_0\rangle \quad \text{Iteration: 0} \]
\[ |+\rangle \rightarrow |x_0\rangle \quad \text{Iteration: 0} \]