



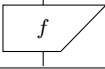
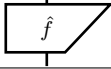














# Diagrammatic Notation Cheat Sheet

	Classical	Quantum	Example
Identity			
Bit			
Qubit			
Map			
Random variable			$\circ = \sum_i \begin{array}{ c} \diagup \\ i \end{array} = \begin{array}{ c} \diagup \\ 0 \end{array} + \begin{array}{ c} \diagup \\ 1 \end{array}$
Deleting input			$\begin{array}{ c} \circ \\ \diagup \\ i \end{array} = 1$
Discarding (tracing) input			$\begin{array}{ c} \text{---} \\ \text{---} \\ \diagup \\ \psi \end{array} = 1$
Copy			$\begin{array}{ c} \text{---} \\ \circ \\ \diagup \\ i \end{array} = \begin{array}{ c} \diagup \\ i \end{array} \begin{array}{ c} \diagup \\ i \end{array}$
Exclusive or (XOR)			$\begin{array}{ c} \text{---} \\ \circ \\ \diagup \\ i \end{array} \begin{array}{ c} \diagup \\ j \end{array} = \begin{array}{ c} \diagup \\ k \end{array} \text{ with } k = \begin{cases} 0, & \text{when } i = j \\ 1, & \text{when } i \neq j \end{cases}$
Encoding			$\begin{array}{ c} \circ \\ \diagup \\ p \end{array} = \begin{array}{ c} \diagup \\ \rho_1 \end{array}$
Decoding			$\begin{array}{ c} \diagup \\ \rho_1 \end{array} \begin{array}{ c} \circ \end{array} = \begin{array}{ c} \diagup \\ p \end{array}$