

| | Classical | Quantum | Example |
|--------------------|-----------|---------|--|
| Identity | | | |
| Bit | | | |
| Qubit | | | |
| Map | | | |
| Random variable | | | $\circ = \sum_i \text{[trapezoid with } i \text{]} = \text{[trapezoid with } 0 \text{]} + \text{[trapezoid with } 1 \text{]}$ |
| Copy | | | $\text{[copy gate]} = \text{[trapezoid with } \psi \text{]} + \text{[trapezoid with } \psi \text{]}$ |
| Exclusive or (XOR) | | | $\text{[XOR gate with inputs j and k]} = \text{[trapezoid with } 1 \text{]} \text{ with } l = \begin{cases} 0, & \text{when } j = k \\ 1, & \text{when } j \neq k \end{cases}$ |
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