Definition (Symmetric monoidal category). A *symmetric monoidal category* is a braided monoidal category $\langle \mathbf{C}, \otimes, \mathbf{1}, \mathrm{br} \rangle$ for which the braiding satisifies the symmetry condition

$$\mathrm{br}_{X,Y} \,\mathbin{\raisebox{0.2ex}{$\fatsemi$}}\, \mathrm{br}_{Y,X} = \mathrm{Id}_{X \otimes Y}$$

for all $X, Y \in \mathrm{Ob}_{\mathbf{C}}$.