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

$$\mathrm{br}_{c,d} \, \mathbin{\mathbf{\vphantom{|}}_{\circ}^{\circ}} \, \mathrm{br}_{d,c} = \mathrm{Id}_{c \otimes d}$$

for all $c, d \in \mathrm{Ob}_{\mathbf{C}}$.