

**Definition.** Let  $\mathbf{A}$  and  $\mathbf{B}$  be sets. A *function*  $f : \mathbf{A} \rightarrow \mathbf{B}$  is a subset

$$f \subseteq \mathbf{A} \times \mathbf{B}$$

with the property

$$\forall x \in \mathbf{A} \quad \exists! y \in \mathbf{B} : \langle x, y \rangle \in f.$$

We say that  $\mathbf{A}$  is the *source* and  $\mathbf{B}$  is the *target* of  $f$ .