

Definition

Let $f: X \rightarrow Y$ be a function from a set X to a set Y . If A is a subset of X , then the *restriction of f to A* is the function

$$\begin{aligned} f|_A: A &\rightarrow Y \\ x &\mapsto f(x). \end{aligned}$$

Some authors write $f \upharpoonright A$ instead of $f|_A$.

Properties

If $A \subseteq X$, and $B \subseteq Y$, then

$$(f|_A)^{-1}(B) = A \cap f^{-1}(B).$$