Symbol	Name	a.k.a.	Definition
$\preceq_m^{\log}$	logarithmic-space many-one reduction		Transforms an instance of A into an instance of B, and uses work space logarithmic in the size of the input.
$\preceq_m^p$	polynomial-time many-one reduction	Karp reduction	Transforms an instance of A into an instance of B, and uses a number of time steps polynomial in the size of the input.
$\preceq_T^p$	polynomial-time Turing reduction	Cook reduction	$A \preceq_T^p B$ uses an oracle for B (a subroutine that can decide membership in B in $\mathcal{O}(1)$ time) and can perform additional polynomial-time computation.
$\preceq_T$	Turing reduction		$A \preceq_T B$ uses an oracle for B (a subroutine that can decide membership in B in $\mathcal{O}(1)$ time) and can perform additional computation.

The reductions are ordered from top to bottom in terms of their power, i.e. the log-space reduction $\preceq_m^{\log}$ on the top is the weakest of the four, and the Turing reduction $\preceq_T$ is the most powerful. But in order to get stronger results, it is better to use weaker reductions, as they are more effective to separate languages. However, they are usually harder to construct.

But there are some more properties a reduction can have without specifically defining a new type of reduction. Some of those properties are shown in the following table.

Name	Definition
Levin reduction	Transforms a certificate for A into a certificate for B.
parsimonious reduction	A one-to-one mapping (i.e. a injective mapping) between certificates for A and certificates for B. Special case of a Levin reduction.