

# Working with Sets: Cheat Sheet

## Terms

**Set** – A collection of elements.

**Disjoint** – Describes sets with no shared elements.

## Symbols

$\in$  – Designates an element that belongs to a particular set.

$\notin$  – Designates an element that does *not* belong to a particular set.

$\subset$  – Designates a set whose elements are all included in a larger set.

$\not\subset$  – Designates a set whose elements are not all included in a particular set.

$\cup$  – Designates the union of multiple sets by combining the elements of each set without repeating shared elements.

$\cap$  – Designates the shared elements among multiple sets, known as their intersection.

$\emptyset$  – Designates a set with no elements, known as an empty set.

$U$  – Designates the universal set, which is a collection of elements in which all other sets being considered are subsets.

' – Designates all the elements in the universal set ( $U$ ) that do *not* belong to the set to which this symbol is attached.