* **Complement of Set :**
* The ***universe of discourse*** can itself be considered a set, call it ***U***.
* The ***complement*** of ***A***, written as ***A´***, is the complement of ***A***w.r.t. ***U***, *i.e.*, it is ***U*** − ***A****.*
* Formal definition for the complement of a set: **A = {x | *x* ∉ A}** or ***U*** – ***A***, where ***U*** is the universal set.
* Further examples (assuming ***U*** = **Z**)
  + Let **U** = {1, 2, 3, 4, 5, 6} and **A** = {1, 3, 5}.

Then

**A'** = {2, 4, 6}.

* + {1, 2, 3} = {…, -2, -1, 0, 4, 5, 6, …}.
* **Properties of complement sets**
  + **A = A Complementation law**
  + **A U A = *U* Complement law**
  + **A ∩ A = ∅ Complement law**