* **Difference of sets :**
* A difference of two sets is the elements in one set that are **NOT** in the other.
* For sets ***A***, ***B***, the ***difference of A and B***, written ***A* − *B***, is the set of all elements that are in ***A*** but not ***B***.
* ***A* − *B***: ≡ **{x | x ∈ A ∧ x ∉ B}**  
  **= {x | (x∈A → x∈B)}**

Also called:   
The ***complement of B with respect to A*.**

* **Z −** **N** = {… , -1, 0, 1, 2, … } − {0, 1, … }  
   = {*x* | *x* is an integer but not a nat. #}  
   = {*x* | *x* is a negative integer}  
   = {… , -3, -2, -1}
* **Further Examples**
  + {1, 2, 3} - {3, 4, 5} = {1, 2}
  + {New York, Washington} - {3, 4} = {New York, Washington}
  + {1, 2} - ∅ = {1, 2}
  + The difference of any set S with the empty set will be the set S