

~~$\{x \in \mathbb{Z} : -6 < x < 6\}$~~

95 Universal set =  $\{x : x \in \mathbb{N}, 10 < x < 35\}$   
 Universal set =  $\{10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35\}$

Set A =  $\{x \in \mathbb{N} : x < 16\}$

i)  $A = \{10, 11, 12, 13, 14, 15, 16\}$   
 $A' = \{17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35\}$   
 $A' = \{x : x \in \mathbb{N}, 17 \leq x < 35\}$

ii) Set B =  $\{x : x > 29\}$

ii)  $B = \{30, 31, 32, 33, 34, 35\}$   
 $B' = \{10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29\}$   
 $B' = \{x : x \in \mathbb{N}, 10 \leq x \leq 29\}$

104 Universal set =  $\{x \in \mathbb{Z} : -6 < x < 6\}$   
 $= \{-6, -5, -4, -3, -2, -1, 0, 1, 2, 3, 4, 5, 6\}$

i)  $N = \{n : n \text{ is a non-negative number}\}$   
 $N = \{0, 1, 2, 3, 4, 5, 6\}$

$N' = \{-1, -2, -3, -4, -5\}$

$N' = \{x \in \mathbb{Z}, -1 < x < -5\}$  (set builder form)

ii)  $P = \{x : x \text{ is a non-positive number}\}$

$P = \{-6, -5, -4, -3, -2, -1, 0\}$

$P' = \{1, 2, 3, 4, 5, 6\}$

$P' = \{y \in \mathbb{Z}, 1 \leq y \leq 6\}$  (set-builder form)

iii)  $M = \{\text{letters of the word REAL}\}$

$= \{r, e, a, l\}$

$N = \{\text{letters of the word LARE}\}$

$= \{l, a, r, e\}$

i)  $M \subseteq N$  is true

Ans) Because all the element of  $N$  is in  $M$

ii)  $N \subseteq M$  is true

Ans) Because all the element of  $M$  is in  $N$

iii)  $M = N$  is true

Ans) ~~Ad~~ Because all the elements of  $M$  and  $N$  are equal.  
So, the sets are also equals.