

SETS HOMEWORK 2

- 1) Given that $N = \{1, 2, 3, \dots, 100\}$. Then write
 - a) Subset of N whose all elements are odd numbers.
 - b) Subset of N whose all elements are perfect square numbers.

- 2) A , B and C are subsets of Universal Set if $A = \{2, 4, 6, 8, 10, 12\}$, $B = \{3, 6, 9, 15\}$, $C = \{5, 10, 15, 20\}$ and U is the set of all whole numbers, draw a Venn diagram showing the relation of U , A , B and C .

- 3) Find the number of elements in following sets :
 - a) $A = \{x : x \text{ is positive integer less than } 100 \text{ and divisible by either } 7 \text{ or } 11\}$
 - b) $B = \{x : x \text{ is prime factor of prime number } p\}$
 - c) $C = \{x : x \text{ is multiple of } 3 \text{ and } 5\}$

- 4) Find the number of possible subsets for the following sets :
 - a) $A = \{1, 3, 7, 8\}$
 - b) $B = \{x : x \text{ is a letter of word TOMORROW}\}$
 - c) $C = \{x : x \text{ is an even integer and } 23 \leq x \leq 59\}$