

1. π set: $\{2, 3, 4, 5, 6\}$, state which of the following statements are true and which are false:

- (i) $2 \in A$ - True
- (ii) $5, 6 \in A$ - True
- (iii) $2, 8 \in A$ - False

2. π set $B = \{4, 6, 8, 10, 12, 14\}$, state which of the following statements are true correct and which are wrong:

- (i) $5 \in B$ - False
- (ii) $12 \in B$ - True
- (iii) $14 \in B$ - True
- (iv) $9 \in B$ - False
- (v) B is the set of even numbers between 2 and 16 - True
- (vi) 4 and 6 are the members of the set B - True

Also write the wrong statements correctly

1. state whether true or false

- (i) $\{1, 2, 3, 4\}$ and $\{4, 3, 2, 1\}$ are the same sets
- (ii) $\{1, 2, 3, 4\}$ and $\{1, 2, 3, 4, 5\}$ are the same sets
- (iii) $\{1, 2, 3\}$ and $\{3, 2, 1\}$ are the same sets
- (iv) $\{1, 2, 3\}$ and $\{1, 2, 3, 4\}$ are the same sets
- (v) $\{1, 2, 3\}$ and $\{1, 2, 3, 4, 5\}$ are the same sets
- (vi) $\{1, 2, 3\}$ and $\{1, 2, 3, 4, 5\}$ are the same sets
- (vii) $\{1, 2, 3\}$ and $\{1, 2, 3, 4, 5\}$ are the same sets
- (viii) $\{1, 2, 3\}$ and $\{1, 2, 3, 4, 5\}$ are the same sets
- (ix) $\{1, 2, 3\}$ and $\{1, 2, 3, 4, 5\}$ are the same sets
- (x) $\{1, 2, 3\}$ and $\{1, 2, 3, 4, 5\}$ are the same sets
- (xi) $\{1, 2, 3\}$ and $\{1, 2, 3, 4, 5\}$ are the same sets
- (xii) $\{1, 2, 3\}$ and $\{1, 2, 3, 4, 5\}$ are the same sets
- (xiii) $\{1, 2, 3\}$ and $\{1, 2, 3, 4, 5\}$ are the same sets
- (xiv) $\{1, 2, 3\}$ and $\{1, 2, 3, 4, 5\}$ are the same sets
- (xv) $\{1, 2, 3\}$ and $\{1, 2, 3, 4, 5\}$ are the same sets
- (xvi) $\{1, 2, 3\}$ and $\{1, 2, 3, 4, 5\}$ are the same sets
- (xvii) $\{1, 2, 3\}$ and $\{1, 2, 3, 4, 5\}$ are the same sets
- (xviii) $\{1, 2, 3\}$ and $\{1, 2, 3, 4, 5\}$ are the same sets
- (xix) $\{1, 2, 3\}$ and $\{1, 2, 3, 4, 5\}$ are the same sets
- (xx) $\{1, 2, 3\}$ and $\{1, 2, 3, 4, 5\}$ are the same sets

1. 25 is a perfect square upto 25
 2. 25 is a number divisible by 5
 3. Write each of the following sets in roster (tabular) form
 and also set builder form:
 a) Set of all natural numbers that can divide 24 (Roster form)
 Answer: $\{1, 2, 3, 4, 6, 8, 12, 24\}$
 b) $LXXIX$ is a number divisible by 2 or 3
 Answer: $LXXIX$ is a factor of 24
 c) Set of odd numbers between 20 and 35
 Answer: $\{21, 23, 25, 27, 29, 31, 33, 35\}$
 d) $LXXIX$ is a odd number between 20 and 35
 Answer: $LXXIX$ is a odd number between 20 and 35
 e) Set of words used in the word 'CALCUTTA'.
 Answer: $\{C, A, L, C, U, T, T, A\}$
 f) LXX is a letter used in the word 'CALCUTTA'.

1. Write the following sets in roster form:
 a) The set of all natural numbers which are multiples of 5
 Answer: $\{5, 10, 15, 20, 25, \dots\}$
 b) The set of all even numbers between 10 and 30
 Answer: $\{12, 14, 16, 18, 20, 22, 24, 26, 28\}$
 c) The set of all prime numbers between 10 and 30
 Answer: $\{11, 13, 17, 19, 23, 29\}$
 d) The set of all letters used in the word 'CALCUTTA'.
 Answer: $\{C, A, L, C, U, T, T, A\}$
 e) The set of all numbers which are multiples of 3 and 5
 Answer: $\{15, 30, 45, 60, 75, 90, \dots\}$
 f) The set of all numbers which are multiples of 2 and 3
 Answer: $\{6, 12, 18, 24, 30, 36, \dots\}$