

Exercise 10(B)

1. ~~A set~~ If set A, ... which are false.

i) $2 \in A$. True

ii) $5, 6 \in A$. True

iii) $3, 4, 7 \in A$. False

iv) $2, 8 \in A$. False

2. If set B, ... which are wrong

i) False, $5 \notin B$

ii) True

iii) True

iv) False, ~~8~~ $9 \in B$

v) True

vi) True

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~~PREVIOUS KNOWLEDGE TEST~~

Exercise 10CB)

4. Write the set containing.

iii) the three type of triangles, iv) the members of your family, v) the first six consonants of the English

Alphabets, vi) the first four vowels of english alphabet

vii) the names of any three prime-ministers of India,

viii) the names of any three prime-ministers of India,

iii) $\{ \text{equilateral, isosceles, scalene} \}$ is a set of three types of triangles ^{angls}

iv) $\{ \text{father, mother, myself} \}$ is a set of members of the family.

v) $\{ b, c, d, f, g, h \}$ is a set of first six english consonants

vi) $\{ a, e, i, o \}$ is a set of first four vowels

vii) $\{ \text{Jawaharlal Nehru, Atal Bihari Vajpayee, ~~Shree~~ Narendra$

~~Modi~~ $\}$ are ~~the name~~ is a set of three prime ministers

of India

3) i) False. sets $\{ 4, 9, 0 \}$ and $\{ 6, 2, 4, 9 \}$ are not the same

ii) True. sets $\{ 0, 1, 3, 4 \}$ and $\{ 4, 0, 1, 3, 9 \}$ are the same.

iii) sets $\{ 5, 4 \}$ and $\{ 5, 4, 4, 5 \}$ are not the same. False.

- iv) sets $\{8, 3\}$ and $\{3, 3, 8\}$ are the same. True
- v) Collection of vowels in the word 'ALLAHABAD' forms a set. True
- vi) If P is the set of letters in the word 'ROOP' then $P = \{p, o, r\}$ True.
- vii) If M is the set of letters used in the word 'Mumbai', then $M = \{m, u, b, a, i\}$ True

Homework

Hw
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Exercise 8.10 (B)

5. a) i) The elements are 2, 8, 3, 15, 2 and 7.

ii) The elements are a, m, n, o, and s

b) i) $\{2, 4, 8, 16, 64, 128\}$

ii) $\{3, 5, 15, 45, 75, 90\}$

6. i) Required set = $\{B, H, O, P, A, L\}$

ii) Required set: $\{B, ~~E, N, G, A~~\} \{e, a\}$

iii) Required set: $\{~~H~~, k, i, n, g\}$

Exercise 10 (c)

i) $\{3, 6, 9, 12, 15\}$

ii) $\{-3, -2, -1, 0, 1, 2, 3\}$

iii) ~~{s}~~ $\{s, c, h, a, p, i, l\}$

iv) $\{11, 13, 15, 17, 19\}$

v) $\{a, e, i\}$

vi) $\{m, d, r, s\}$

2. i) $\{2, 3, 5, 7, 11, 13, 17, 19\}$

ii) $\{1, 4, 9, 16\}$

iii) $\{2, 4, 6, 8\}$

iv) $\{a, b, c, d, e, f, g, h\}$

v) $\{b, a, s, k, e, t\}$

vi) $\{Jaipur, Jodhpur, Jalandhar, Jhansi\}$

vii) $\{\Delta, \circ, \square, \diamond\}$

viii) $\{0, a\}$

ix) $\{0, 4, 9\}$

3. i) $\{x: x \text{ is an even counting number less than } 11\}$
- ii) $\{x: x \text{ is a prime number } x < 12\}$
- iii) $\{x: x \text{ is a month whose name starts with letter J}\}$
- iv) $\{x: x \text{ is a vowel in English alphabet}\}$
- v) $\{x: x \text{ is a day of the week whose name starts with letter J}\}$
- vi) $\{x: x \text{ is a perfect square natural number upto } 25\}$
or $\{x: x = n^2, n \in \mathbb{N}, n \leq 6\}$
- vii) $\{x: x \text{ is a natural number upto } 30 \text{ and divisible by } 5\}$

4. i) $\{1, 2, 3, 4, 6, 8, 12, 24\}$; $\{x: x \text{ is a natural number which divides } 24 \text{ completely}\}$.
- ii) $\{21, 23, 25, 27, 29, 31, 33\}$; $\{x: x \text{ is an odd number between } 20 \text{ and } 35\}$
- iii) $\{c, a, l, e, t\}$; $\{x: x \text{ is a letter used in the word 'CALCUTTA'}\}$
- iv) $\{\text{January, February, March, April, May}\}$

{x: x is name of first five months of a year}

v) {16, 25, 36, 49, 64, 81}, {x: x is a perfect square two digit number}

5. i) {5, 15, 25, 35}

ii) {18, 24, 30}

iii) {Friday, Saturday, Sunday}

iv) {September, October, November, December}

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