GRADE 6

STUDENTS' WORKSHEETS
MATHEMATICS
(September)

Academic Year 2020 - 2021

COVID-19 ACCELERATED RESPONSE FOR EDUCATION, PUNJAB

Punjab Curriculum & Textbook Board, Lahore

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WORKSHEET # 1

Lesson Plan # 1

Instructions: Read the following questions/statements carefully and write answer in the given space.

Q 1. Make a set of:

i.   Natural numbers up to 8

Ans: _____

ii.   Three names that start with the letter 's'
Ans: _____

iii. Five items from your school bag
Ans: _____

Q 2. Which of the following statements is a set? Encircle the correct answer.

i.   The capital letters of the English Alphabet.   Set / Not a set

ii.   {l, e, t, t, e, r}   Set / Not a set

iii. The sharp boys of the school   Set / Not a set

iv. The natural numbers less than 50.   Set / Not a set

v.   {0, 1, 2, 3, 4}   Set / Not a set

vi. The whole numbers   Set / Not a set

vii. The set of Pakistani singers   Set / Not a set

WORKSHEET # 2

Lesson Plan # 2

Instructions: Read the following questions/statements carefully and write answer in the given space.

Q 1. If A = {a, e, i, o, u} and B = {a, b, c, ..., z}, then identify whether following statements are true or false and tick the correct answer.

    i. $b \in A$ True / False

    ii. $c \in B$ True / False

    iii. $i \in B$ True / False

    iv. $I \in A$ True / False

    v. $f \in A$ True / False

    vi. $v \in A$ True / False

    vii. $x \notin A$ True / False

Q 2. Fill in the blanks by using either symbol $\in$ or $\notin$.

    i.   1 _____{2, 3}

    ii.   b _____{a, b, c}

    iii.   i_____ The set of vowels

    iv.   Snake _____ The set of pets

    v.   0 _____ The set of Whole numbers

    vi.   5 _____ The set of small letters of the English alphabet

    vii.   Notebook _____ The set of items in a school bag

    viii.   Lion _____ The set of jungle animals

Q 3. Convert the following statements into the symbolic form.

    i.   1 is not an element of the set W   _____

    ii.   Sindh does not belong to the set B   _____

    iii.   Potato is an element of the set V   _____

WORKSHEET # 3

Lesson Plan # 3

Instructions: Read the following questions/statements carefully and write answer in the given space.

Q 1. Write the following sets into the descriptive form.

   i.   C = {cricket, football, hockey, tennis}

Ans: _____

   ii.   E = {2, 4, 6,……}

Ans: _____

   iii. F = {potato, ladyfinger, carrot, brinjal}

Ans: _____

   iv. N = {1, 2, 3,…..}

Ans: _____

   v.   W = {0, 1, 2, 3, ……}

Ans: _____

   vi. X = {father, mother, brother, sister}

Ans: _____

Q 2. Write the following sets into the tabular form.

   i.   B = The set of names of 3 vegetables.

Ans: _____

   ii.   C = The set of 4 domestic animals.

Ans: _____

   iii. D = The set of 5 birds.

Ans: _____

   iv. E = The set of 3 prime ministers of Pakistan.

Ans: _____

WORKSHEET # 4

Lesson Plan # 4

Instructions: Read the following questions/statements carefully and write answer in the given space.

Q 1. Separate the finite and infinite set from the following sets and write them in their correct column given in the table below:

A = Set of stars in the sky

B = Set of natural numbers

C = Set of the number of days in a year

D = Set of Islamic months

E = {1, 2, 3, 4, 5, 6, …..}

F = {2, 4, 6, 8, 10}

G = {a, e, i, o, u}

H = {1, 3, 5, 7, 9,….}

Finite sets	Infinite sets

WORKSHEET # 5

Lesson Plan # 5

Instructions: Read the following questions/statements carefully and write answer in the given space.

Q 1. Which of the following sets is an empty set? Tick the correct answer.

i.   A set of the English alphabet between u and v.   Empty / Not Empty

ii.   A set of vowels other than a and o.   Empty / Not Empty

iii.   A set, which has only one element.   Empty / Not Empty

Q 2. Identify whether the following pairs of sets are equivalent or non-equivalent. Tick (✓) the correct answer.

Pair of sets	Equivalent	Non-equivalent
A = {−2, −1, 0, 1}, B = {3, 5, 7, 8}		
A = {0, 1, 2, 3, 4}, B = {1, 2, 3, 4, 5}		
A = {a, e, i, o, u}, B = {l, m, n, o}		
X = {monkey, lion, hen}, B = {a, b, c}		
P = {p, q}, Q = {p, q, r}		

Q 3. Write whether the following sets are equal or not.

i.   A = {1, 2, 3, 4, 5},   B = {1 + 0, 1 + 1, 1 + 2, 1 + 3, 1 + 4}

Ans: _____

ii.   A = {0, 1, 2, 3, 4},   B = {6 − 1, 5 − 1, 4 − 2, 3 − 1, 2 − 2}

Ans: _____

iii.   A = The set of even numbers less than 9,   B = {0, 2, 4, 6, 8}

Ans: _____

iv.   X = The set of first 5 even numbers,   Y = The set of first 5 odd numbers

Ans: _____

v.   M = {b, l, m, o, s, y},   N = The set of letters in the word 'symbol'

Ans: _____

WORKSHEET # 6

Lesson Plan # 6

Instructions: Read the following questions/statements carefully and write answer in the given space.

Q 1. If A = {a, b, c}, B = {b, c, d}, C = {c, d, e} and D = {a, b, c, d}, then write which of the following statements are true and which are false?

i. $A \subset D$ _____

ii. $A \subseteq D$ _____

iii. $B \subset D$ _____

iv. $B \subset C$ _____

v. $C \subset A$ _____

Q 2. Find all subsets of A = {1, 2}

Ans. _____

Q 3. Find all proper subsets of X = {a, b, c}

Ans. _____