

# Chapter 1 Class 11

## - Sets

### - MCQ Worksheet 1

### by *teachoo*

Chapter: [Chapter 1 Class 11 Maths – Sets](#)

Name: \_\_\_\_\_

School: \_\_\_\_\_

Roll Number: \_\_\_\_\_

1. A city council wants to identify all "beautiful parks" for a renovation grant. Why is this instruction not suitable for creating a mathematical set of parks?

- (a) Because the number of parks is finite.
- (b) Because the criterion "beautiful" is subjective and not well-defined.
- (c) Because parks are physical locations.
- (d) Because the city might not have any parks.

2. Let A be the set of all four-sided polygons (quadrilaterals) and B be the set of all rhombuses. Which statement accurately describes their relationship in geometry?

- (a) A and B are equal sets ( $A = B$ ).
- (b) A is a proper subset of B ( $A \subset B$  and  $A \neq B$ ).

(c) B is a proper subset of A ( $B \subset A$  and  $B \neq A$ ).

(d) A and B are disjoint sets.

3. An engineer plots the exact path of a single, continuous weld seam on a large metal plate. If the set S represents all the infinite points that form this continuous line, the set S is:

(a) An empty set

(b) A finite set

(c) An infinite set

(d) A singleton set

4. A food delivery app has filters for its restaurant listings.

- $A = \{ \text{Restaurants that are 'Pure Veg' } \}$
- $B = \{ \text{Restaurants that offer 'Chinese' cuisine } \}$

A user wants to find a 'Pure Veg' restaurant that serves 'Chinese'. Which set operation represents the user's search result?

(a)  $A \cup B$

(b)  $A \cap B$

(c)  $A - B$

(d)  $B'$

5. Let U be the set of all products on an e-commerce website. Let F be the set of products eligible for "Free Delivery". The set  $F'$  (complement of F) represents:

- (a) The set of all products that have a delivery charge.
- (b) The set of all items not sold on the website.
- (c) The set of all products with "Free Delivery".
- (d) An empty set, because all products have a delivery status.

6. In a computer network, let  $S$  be the set of all servers and  $W$  be the set of all workstations. No machine is both a server and a workstation. If  $S \cap W = \phi$ , what does this signify?

- (a) The network has no servers.
- (b) Every server is also a workstation.
- (c) The roles of server and workstation are mutually exclusive.
- (d) The network only contains servers and workstations.

7. An engineer is designing a circuit. The voltage  $v$  must be a real number that satisfies the equation  $V^2 + 12 = 7$ . The set of all possible values for  $v$  is:

- (a)  $\{\sqrt{5}, -\sqrt{5}\}$
- (b)  $\{5, -5\}$
- (c)  $\{5\}$
- (d)  $\phi$  (The Empty Set), as  $V^2$  cannot be negative.

8. A biologist studies animal habitats. Let  $F$  be the set of all animals that live in forests, and  $A$  be the set of all amphibians. If  $A \subset F$ , what is the most logical conclusion?

- (a) Every forest-dwelling animal is an amphibian.
- (b) All known amphibians in this study live in forests.
- (c) No amphibians live in forests.
- (d) The group of amphibians is the same as the group of forest animals.

9. A music streaming app has two toggles for a playlist: "Explicit Content" (Set A) and "Downloaded" (Set B). A user wants to listen to only downloaded songs that are NOT explicit. The resulting playlist is represented by which set?

- (a)  $A \cap B$
- (b)  $A \cup B$
- (c)  $A - B$
- (d)  $B - A$

10. A manufacturing robot is programmed with two rules. Rule 1 (Set A): It can only handle parts whose weight  $w$  is a factor of 24 kg . Rule 2 (Set B ): It can only handle parts whose weight  $w$  is a multiple of 4 kg . Which of the following part weights can the robot handle?

- (a) 6 kg
- (b) 10 kg
- (c) 12 kg
- (d) 16 kg

## Important links

- Answer of this worksheet - <https://www.teachoo.com/25604/5368/MCQ---Worksheet-1/category/Teachoo-Questions---MCQs/>
- Full Chapter with Explanation, Activity, Worksheets and more – <https://www.teachoo.com/subjects/cbse-maths/class-11th/ch1-11th-sets/>
- Maths Class 11 - <https://www.teachoo.com/subjects/cbse-maths/class-11th/>

For more worksheets, ad-free videos and Sample Papers – subscribe to

**Teachoo Black** here - <https://www.teachoo.com/black/>