

Chapter 1. Sets

1) Empty set is a

- A) Infinite
- B) Finite
- C) Invalid
- D) None of these

Answer: B

2) How many rational and irrational numbers are possible between 0 and 1

- A) finite
- B) infinite
- C) 0
- D) 1

Answer: B

3) $A \subset B$ is read as

- A) A is less than B
- B) A is a proper subset of A
- C) B is a proper subset of A
- D) None of these

Answer: B

4) Every set is a _____ of itself.

- A) improper subset
- B) proper subset
- C) compliment
- D) none

Answer: A

5) A set has n elements, then the, number of elements in its power set is

- A) 2^n
- B) 2^{n-1}
- C) 2^{n+1}
- D) None of these

Answer: A

6) The union of sets A and B is expressed as

- A) $A \cup B$
- B) $A \times B$
- C) A/B
- D) None of these

Answer: A

7) The intersection of sets A and B is expressed as

- A) $A \cup B$
- B) $A \cap B$
- C) A/B
- D) None of these

Answer: B

8) $A - B$ is read as

- A) Difference of A and B of B and A
- B) Difference of A and B
- C) Neither A nor B
- D) Both A and B

Answer: A

9) $A - B$ will contain elements in

- A) A not in B
- B) B not in A
- C) Neither A nor B
- D) Both A and B

Answer: A

10) A' will contain how many elements from the original set A

- A) infinite
- B) 0
- C) 1
- D) All elements of A

Answer: B

11) $(A')'$ =

- A) A'
- B) $U - A$
- C) A
- D) U

Answer: C

12) If A is not equal to B, then the Cartesian product

- A) $A \times B = B \times A$
- B) $A \times B \neq B \times A$
- C) Is not possible
- D) None of these

Answer: B

13) If A has m elements and B has n elements, then $A \times B$ has elements

- A) $m+n$
- B) $m-n$
- C) $m \times n$
- D) $2n$

Answer: C

14) In 1st quadrant

- A) $x > 0, y < 0$
- B) $x < 0, y > 0$
- C) $x < 0, y < 0$
- D) $x > 0, y > 0$

Answer: D

15) If $R = \{(1,1), (2,3), (4,5)\}$, then domain of the function is

- A) $\text{Dom } R = \{1,2,4\}$
- B) $\text{Dom } R = \{1,3,5\}$

C) Dom R $\{1,1,4,5\}$

D) Dom R = $\{2,3,4,5\}$

Answer: A