



ST. LAWRENCE HIGH SCHOOL

A Jesuit Christian Minority Institution



Sub: Arithmetic
Duration: 40 Min

Class: 7
Worksheet 27
SETS

Date: 10.05.21
Full Marks: 15

Choose the correct options:

1. List all the elements in $A = \{\text{letters in the word "BOOK"}\}$.

- a. $A = \{B, O, K\}$
- b. $A = \{B, O, O, K\}$
- c. $A = \{B, K\}$
- d. $A = \Phi$

2. Which symbol completes the statement correctly? $\{6\} ____ \{1, 3, 6\}$

- a. \in
 - b. \subset
 - c. $=$
 - d. $\not\subset$
3. Q.

Complete the statement correctly: Cow $____$ the set of all farm animals.

- a. \in
- b. \subset
- c. $=$
- d. $\not\subset$

4. Which of the following is a well-defined set?

- a. {a happy child}
 - b. {a popular TV series}
 - c. {a favorite book by my classmates}
 - d. {a Mathematics book in the school library}
5. Which of these sets is equal to $\{L, O, V, E\}$?

- a. $\{O, V, E\}$
- b. $\{S, E, V, O, L\}$
- c. $\{O, E, L, V\}$
- d. $\{L, E, V\}$

6. Which of these sets is equivalent but not equal to $\{\text{Ram, Jay, Mick}\}$

- a. $\{\text{Mick, Jay, Olga}\}$
- b. $\{\text{Jay, Mick, Ram}\}$
- c. $\{\text{Mick, Jay, Ram}\}$
- d. $\{\text{Andy, Ram, Ed, Jay}\}$

7. Describe this set in words: $\{2, 3, 5, 7, 11, 13, 17, 19\}$

- a. Set of prime numbers from 2 to 19
- b. Set of prime numbers less than 19
- c. Set of odd numbers less than 20
- d. Set of whole numbers less than 20

8. Which of the following statements is TRUE?

- a. $2 \in \{1,3,5,7\}$
- b. $\{5\} \in \{5,10,15,20\}$
- c. $6 \in \{x/x \text{ is an odd number}\}$
- d. $3 \in \{x/x \text{ is a prime number}\}$

9. Consider $M = \{\text{vowels in the word "MATHEMATICS"}\}$. Find $n(M)$.

- a. 4
- b. 3
- c. 7
- d. 10

10. Write $\{\text{even whole numbers between 3 to 15}\}$ using the roster method.

- a. $\{3,5,7,9,11,13,15\}$
- b. $\{5,7,9,11,13\}$
- c. $\{4,6,8,10,12,14\}$
- d. $\{2,4,6,8,10,12,14,16\}$

11. It is a collection of well-defined group of objects.

- a. Element
- b. Set
- c. Cardinality
- d. Universal Set

12. Which best describe the set

$\{0, 2, 4, 6, \dots\}$?

- a. Set of all counting numbers divisible by 2
- b. Set of all composite numbers
- c. Set of all whole numbers divisible by 2
- d. Set of rational numbers

13. What type of set is denoted as either $\{ \}$ or \emptyset ?

- a. Superset
- b. Disjointed Set
- c. Empty (or Null) Set
- d. Subset

14. Given that

$R = \{\text{factors of } 36\}$.

$n(R) =$

- a. 6
- b. 9
- c. 12
- d. 15

15. Which of the following is not a well-defined set?

- a. The set of boys in your class
- b. The set of even numbers
- c. The set of students wearing red dress
- d. All of these