



## HOLIDAY HOMEWORK



### SUBJECT: MATHEMATICS CLASS- VI

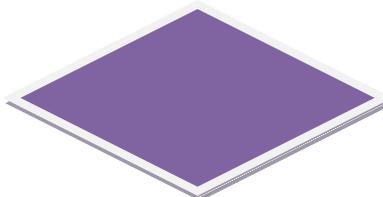
#### CREATIVE SECTION

#### **PROJECT:-**

1) Make a chart of divisibility rules of 2, 3, 4, 5, 6, 8, 9, 10 and 11 with an example of each.

2) Try to form a polygon with:

- Five matchsticks.
- Four matchsticks.
- Three matchsticks.
- Two matchsticks.



In which case was it not possible? Why?

**NOTE: PROJECT CAN BE DONE IN A CHART PAPER / A4 SIZE PAPER AND CHAPTER BASED QUESTIONS ARE TO BE DONE IN A SEPARATE NOTEBOOK**

#### SOLVE THE FOLLOWING QUESTIONS:-

#### CHAPTER 1-KNOWING OUR NUMBERS

1. If 1 is added to the greatest 7- digit number, it will be equal to:

- (A) 10 thousand      (B) 1 lakh      (C) 10 lakh      (D) 1 crore

2. The expanded form of the number 9578 is:

- (A)  $9 \times 10000 + 5 \times 1000 + 7 \times 10 + 8 \times 1$       (B)  $9 \times 1000 + 5 \times 100 + 7 \times 10 + 8 \times 1$   
(C)  $9 \times 1000 + 57 \times 10 + 8 \times 1$       (D)  $9 \times 100 + 5 \times 100 + 7 \times 10 + 8 \times 1$

3. When rounded off to nearest hundred, the number 85642 is:-  
(A) 85600                      (B) 85640                      (C) 85700                      (D) 85000
4. The product of the place values of two 2's in 428721 is:  
(A) 4                              (B) 40000                      (C) 400000                      (D) 40000000
5. Which of the following numbers in Roman Numerals is incorrect?  
(A) LXII                      (B) XCI                      (C) LC                      (D) XLIV
6. Estimate  $796 - 314$  using general rule.
7. Arrange the following numbers in descending order:  
8435, 4835, 13584, 5348, 25843
8. Write:- (i) Nine crore five lakhs forty one in Numeral  
(ii) 99985102 in words according to International System of Numeration.
9. Write:-(i) 1256 in Roman Numeral  
(ii) CXLIX in Hindu- Arabic Numeral
10. In 2001, the population of Tripura and Meghalaya were 3,199,203 and 2,318,822, respectively. Write the populations of these two states in words(Indian system)

## CHAPTER 2-WHOLE NUMBERS

1. Write the predecessor and successor of  
a) 19                              b) 1997                              c) 12000                              d) 100000.
2. Is there any natural number that has no predecessor?
3. How many whole numbers are there between 32 and 53?
4. In each of the following pairs of numbers, state which whole number is on the left of the other number on the number line. Also write them with the appropriate sign ( $>$ ,  $<$ ) between them.  
(a) 530, 503                      (b) 370, 307                      (c) 98765, 56789

5. Find the sum by suitable rearrangement:

(a)  $837 + 208 + 363$

(b)  $1962 + 453 + 1538 + 647$

6. Find the product by suitable rearrangement:

(a)  $2 \times 1768 \times 50$

(b)  $4 \times 166 \times 25$

7. Find the value of the following:

(a)  $297 \times 17 + 297 \times 3$

(b)  $54279 \times 92 + 8 \times 54279$

8. Find the product using suitable properties.

(a)  $738 \times 103$

(b)  $854 \times 102$

9. A vendor supplies 32 litres of milk to a hotel in the morning and 68 litres of milk in the evening. If the milk costs Rs.45 per litre, how much money is due to the vendor per day?

10. Study the pattern :

$1 \times 8 + 1 = 9$

$1234 \times 8 + 4 = 9876$

$12 \times 8 + 2 = 98$

$12345 \times 8 + 5 = 98765$

$123 \times 8 + 3 = 987$

Write the next two steps. Can you say how the pattern works?

(Hint:  $12345 = 11111 + 1111 + 111 + 11 + 1$ ).

### CHAPTER 3-PLAYING WITH NUMBERS

1. Find the possible factors of 45, 30 and 36.

2. Write all the factors of the following numbers :

(a) 24

(b) 15

3. What is the greatest prime number between 1 and 10?

4. Express the following as the sum of two odd primes.

(a) 44

(b) 36

5. I am the smallest number, having four different prime factors. Can you find me?

6. Write seven consecutive composite numbers less than 100 so that there is no prime number between them.

7. Write five pairs of prime numbers less than 20 whose sum is divisible by 5.

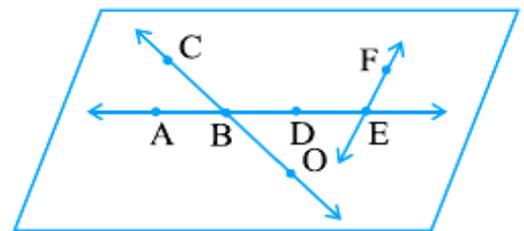
(Hint :  $3+7 = 10$ )

8. Find the common factors of 75, 60 and 210.
9. Write the greatest 4-digit number and express it in terms of its prime factors.
10. In a morning walk, three persons step off together. Their steps measure 80 cm, 85 cm and 90 cm respectively. What is the minimum distance each should walk so that all can cover the same distance in complete steps?

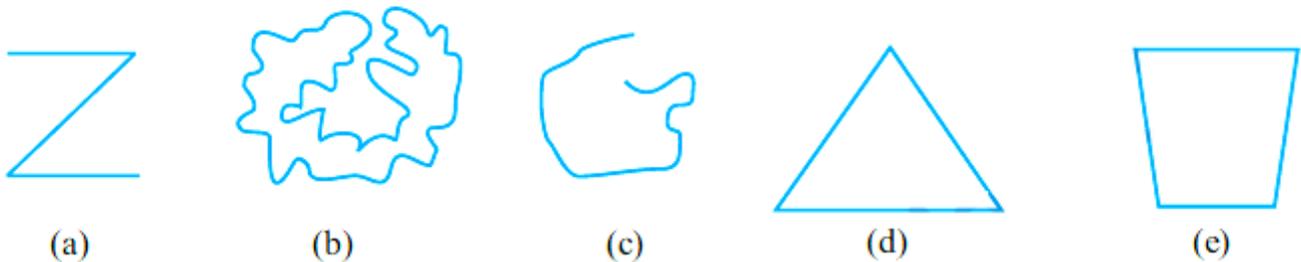
### CHAPTER 4-BASIC GEOMETRICAL IDEAS

1. Use the figure to name :

- (a) Line containing point E.
- (b) Line passing through A.
- (c) Line on which O lies
- (d) Two pairs of intersecting lines.



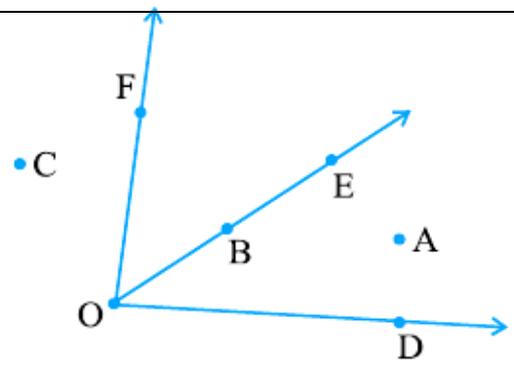
2. How many lines can pass through (a) one given point? (b) two given points?
3. Draw a rough figure and label suitably in each of the following cases:
  - (a) Point P lies on  $\overline{AB}$ .
  - (b)  $\overline{XY}$  and  $\overline{PQ}$  intersect at M.
  - (c) Line  $l$  contains E and F but not D.
  - (d)  $\overline{OP}$  and  $\overline{OQ}$  meet at O.
4. Classify the following curves as (i) Open or (ii) Closed.



5. Draw rough diagrams to illustrate the following:
  - (a) Open curve
  - (b) Closed curve.

6. In the given diagram, name the point(s)

- (a) In the interior of  $\angle DOE$
- (b) In the exterior of  $\angle EOF$
- (c) On  $\angle EOF$



7. Draw rough diagrams of two angles such that they have

- (a) One point in common.
- (b) Two points in common.
- (c) Three points in common.
- (d) Four points in common.
- (e) One ray in common.

8. Draw a rough sketch of a triangle ABC. Mark a point P in its interior and a point Q in its exterior. Is the point A in its exterior or in its interior?

9. Draw a rough sketch of a quadrilateral PQRS. Draw its diagonals. Name them. Is the meeting point of the diagonals in the interior or exterior of the quadrilateral?

10. Draw any circle and mark:

- |                             |                             |
|-----------------------------|-----------------------------|
| (a) its centre              | (b) a radius                |
| (c) a diameter              | (d) a sector                |
| (e) a segment               | (f) a point in its interior |
| (g) a point in its exterior | (h) an arc                  |

***"STAY HOME, STAY SAFE"***