

**FIRST TERM END EXAMINATION - 2023**

CLASS : 7

**MATHEMATICS**Reg. No. : 

TIME : 2.00 Hrs.

MAX. MARKS : 60

**I. Choose the correct answer.****5x1=5**

- $(-100) - 0 + 100 = \dots\dots\dots$   
a) 200                                      b) 0                                      c) 100                                      d) -200
- When the non-parallel sides of a trapezium are equal, then it is known as  
a) a square                                      b) a rectangle                                      c) an isosceles trapezium                                      d) a parallelogram
- The solution of  $3x + 5 = x + 9$  is  
a) 2                                      b) 3                                      c) 5                                      d) 4
- If the cost of 3 books is ₹ 90, then find the cost of 12 books.  
a) ₹ 300                                      b) ₹ 320                                      c) ₹ 360                                      d) ₹ 400
- The sum of all angles at a point is  
a)  $360^\circ$                                       b)  $180^\circ$                                       c)  $90^\circ$                                       d)  $0^\circ$

**II. Fill in the blanks.****5x1=5**

- $(-5) + \dots\dots\dots = -100$
- The angle between the diagonals of a rhombus is  $\dots\dots\dots$
- The additive inverse of  $-37xyz$  is  $\dots\dots\dots$
- 16 taps can fill a petrol tank in 18 minutes. The time taken for 9 taps to fill the same tank will be  $\dots\dots\dots$  minutes.
- A tetromino is a shape obtained by  $\dots\dots\dots$  squares together.

**III. Say true or False****5x1=5**

- $(-15) \times 5 = 75$
- If the base is increased 2 times and the height is halved, then the area of the parallelogram remains the same.
- $2pq$  and  $-7qp$  are like terms.
- Number of students in a hostel and consumption of food are not in direct proportion.
- The adjacent angles that are supplementary are called linear pair of angles.

**IV. Match the following.****5x1=5**

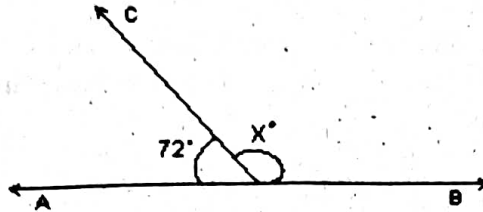
- $(-82) \div 82$  - 0
- Area of the parallelogram -  $-3$
- $x + (-x)$  -  $\frac{1}{2} xh(a+b)$  sq. units
- $(-10) + (+7)$  -  $-1$
- Area of the trapezium -  $bxh$  sq. units.

**V. Answer any 10 questions from the following.****10x2=20**

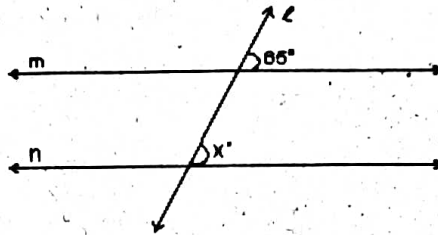
- Add 8 and -12 using number line.
- What is the balance in chezhayan's account as a result of a purchase for ₹ 1079, if he had an opening balance of ₹ 5000 in his account?
- The product of two integers is -135. If one number is -15, find the other integer.
- Are  $(-42) \times (-7)$  and  $(-7) \times (-42)$  equal? Mention the property.
- Find the height 'h' of the parallelogram whose area and base are 368 sq. cm and 23 cm respectively.
- Find the area of the rhombus whose side is 17 cm and the height is 8 cm.

27. Find the area of a trapezium whose parallel sides are 24 cm and 20 cm and the distance between them is 15 cm.
28. If  $x=3, y=2$  find the value of  $4x+7y$ .
29. Add :  $-9y, 11y, 2y$
30. Solve :  $7x+10=80$
31. A dozen bananas costs ₹ 20. What is the price of 48 bananas?
32. 60 workers can spin a bale of cotton in 7 days. In how many days will 42 workers spin it?

33. Calculate the value of  $x^\circ$  in the given figure.



34. Find the measure of angle  $x$  in the given figure.

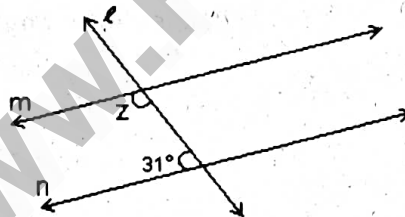


### VI. Answer any five of the following.

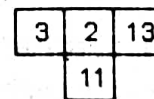
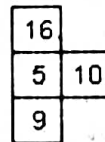
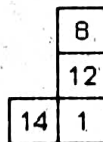
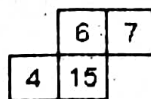
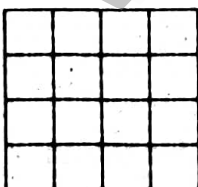
5x3=15

35. Are  $(11+7) + 10$  and  $11 + (7+10)$  equal? Mention the property.
36. Each day, the workers drill down 22 feet further until they hit a pool of water. If the water is at 110 feet, on which day will they hit the pool of water?
37. If the area of the rhombus is 60 sq. cm and one of the diagonals is 8 cm. find the length of the other diagonal.
38. Identify the like terms among the following :  $7x, 5y, -8x, 12y, 6z, z, -12x, -9y, 11z$
39. Find two consecutive odd numbers whose sum is 200.
40. A farmer has enough food for 144 ducks for 28 days. If he sells 32 ducks, how long will the food last?

41. Find the measure of angle  $z$ .



42. Using the given tetrominoes with numbers, complete the 4x4 magic square.



### VII. Answer any one of the following :

1x5=5

43. Construct a Perpendicular bisector of the line segment  $AB = 6$  cm.
44. Construct the angle  $60^\circ$  using ruler and compass only.