

MATHS Plus

A Book of Mental Mathematics

Book **6**

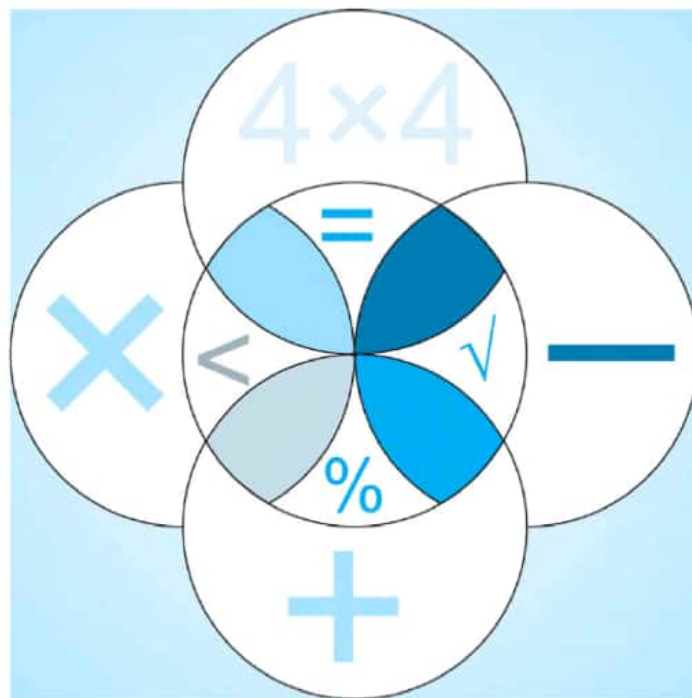


GOYAL BROTHERS PRAKASHAN

MATHS *Plus*

A Book of Mental Mathematics

6



GOYAL BROTHERS PRAKASHAN

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INTRODUCTION

The revised edition of the book **Maths Plus — A Book of Mental Mathematics, Book 6 (for Class 6)** is a part of the series **Maths Plus — A Book of Mental Mathematics** (Books 1 to 8) which is an innovative series meant for Primary and Middle classes to enhance the mental agility of the learners. This book departs from the traditional approach of teaching Mental Mathematics. In the traditional approach, each assignment was a mix-up of different mathematical concepts. But in this book, each assignment covers up only one concept. Also, the assignments in this book have been prepared keeping in mind the sequence followed by the latest NCERT syllabus. Each assignment in the book covers the chapter/concept taught in the textbook based on the latest NCERT syllabus.

Our approach will help in making the mathematical concepts clear to the learners. It will not only improve the mathematical and calculation skills but also develop quick and logical thinking in the learners.

Salient features of the book are :

- Eye-catching illustrations and a child-friendly layout capture the imagination of child and create an interest in the subject.
- Assignments are prepared keeping in mind the age and level of understanding of the learners.
- Ample space has been provided for writing the answers.
- Revision Assignments have been given at the end. Revision Assignments are meant to check the retention capacity and the level of understanding of the students.
- In the beginning of each chapter, a brief summary of the concepts to be checked in the chapter under the head **Outline of the Chapter** has been given.

We are sure that the book will help in building a strong foundation in mathematics for the children and enable them to face the future in a better way.

Suggestions and criticism for the improvement of the book would be highly appreciated.

— The Publishers

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KNOWING OUR NUMBERS

OUTLINE OF THE CHAPTER

1. In Hindu-Arabic system of numeration, we use ten symbols 0, 1, 2, 3, 4, 5, 6, 7, 8 and 9, called digits.
2. A group of digits denoting a number is called a numeral.
3. The number with more number of digits is greater than the number with less number of digits.
4. If the number of digits in the given numbers is the same, we look for their left-most digits. That number is larger, which has a larger left most digit. If this digit is same in the given numbers, we look at the next digits and so on.
5. To get the greatest number from given digits, we arrange the digits in descending order, and to get the smallest number, we arrange the digits in ascending order.
6. Face-value of a digit in a number is the digit itself.
7. Place-value of a digit in a number = face-value \times value of the place it occupies in the place-value chart.
8. In Indian place-value chart, nine places are grouped into four periods. These are ones, thousands, lakhs and crores. From the right, first three places form the ones period, next two places form the thousands period, next two places form the lakhs period and next two places form the crores period.
9. In International place-value chart, first nine places are grouped into three periods, namely ones, thousands and millions. From the right, first three places form the ones period, next three places form the thousands period and the next three places form the millions period.
10. 1 lakh = 100 thousands, 10 lakhs = 1 million, 1 crore = 10 millions, 10 crores = 100 millions.
11. Estimation involves approximating a quantity to an accuracy required. For example, 5263 may be approximated to 5260, or to 5300 or to 5000 i.e., to the nearest ten or to the nearest hundred or to the nearest thousand respectively depending on our need.
12. In problems, where we need to carry out more than one number operation, we use brackets to indicate priorities of operations.
13. In Roman numeration system, seven symbols I, V, X, L, C, D and M are used to write any number.
14. Repetition of a Roman symbol means addition. Repetition of a symbol is not allowed more than three times. But the symbols V, L, and D are never repeated.
15. If a symbol of smaller value is written to the right of a symbol of greater value, its value gets added to the value of greater symbol.
16. If a symbol of smaller value is written to the left of a symbol of greater value, its value is subtracted from the value of the greater symbol. The symbols V, L and D are never subtracted. The symbol I can be subtracted from V and X only. The symbol X can be subtracted from L, C and M only.

Assignment 1

Knowing Our Numbers

Answer the following questions :

1. How many thousands make a lakh? _____
2. Identify the digit in 2,45,368 whose place-value is 5,000. _____
3. What is the smallest 5-digit number? _____
4. What is the greatest 4-digit number? _____
5. Write the smallest 4-digit number using only one digit. _____
6. How many centimetres are there in 1 km? _____
7. Write the number corresponding to $8,00,000 + 6,000 + 100 + 5$. _____
8. Write the place value of 5 in 6,19,538. _____
9. The place value and the face value of 0 in any number is the same. Is it true?

10. Round off 73 to the nearest tens. _____
11. Write the Roman numeral for 44. _____
12. What is the difference between the face-value and the place-value of 5 in 3605?

13. Insert > or < in the box : XVI 14.
14. Use the digits, 1, 7, 6, 2 without repetition and make the greatest number.

15. Is 0756 a 4-digit number? _____
16. Write the Hindu-Arabic numeral for XLV. _____
17. Can we write 15 as VXX? _____
18. Rearrange the digits in the number 43926 to get the largest possible number.

19. Round off 2519 to the nearest hundreds. _____
20. Insert > or < in the box : 15,623 15,073.

Date :

Teacher's Signature :

Knowing Our Numbers

Assignment 2

Answer the following questions :

1. Determine the digit whose place-value in 2738 is 700. _____
2. Write the largest 6-digit number. _____
3. How many lakhs make a million? _____
4. What is the face value of 9 in 59? _____
5. How many millions make a billion? _____
6. Round 215 to the nearest tens. _____
7. Write the Roman numeral for 98. _____
8. Write all possible 2-digit numbers, using the digits 7, 0. _____
9. Write the number, "thirty-four lakh, six thousand, five hundred three" in figures. _____
10. Find the difference between face value and place value of 5 in 2,10,516.

11. How many millions are there in 2 crores?. _____
12. Can we represent 40 as XXXX? _____
13. Round off 438256 to the nearest thousands. _____
14. Write the digit which has the greatest place value in 29658

15. Use digits 9, 7, 4, 1 without repetition and make smallest 4-digit number.

16. Tick (✓) the greatest number : 1902 1920 9201 9021 9210.
17. Compare with > or < : 4875 4889.
18. Rewrite "Twelve million, five thousand, twenty-one", using the Indian numeration system. _____

19. Which is greater : twenty lakh or two million? _____
20. Write the smallest 4-digit number using the digits 9, 0, 5. _____

Date :

Teacher's Signature :

Assignment 3

Knowing Our Numbers

Tick (✓) mark the correct answer in each case :

1. The place-value of 6 in 63,145 is :
(i) 60,000 (ii) 600 (iii) 60 (iv) 6
2. The difference between the place-value and the face-value of 3 in 853 is :
(i) 2 (ii) 3 (iii) 0 (iv) none of these
3. In international place-value system, we write hundred million for :
(i) 10 lakh (ii) 1 crore (iii) 10 crore (iv) 100 crore
4. $2,00,000 + 5,000 + 800 + 6$ is equal to :
(i) 2,55,806 (ii) 2,05,086 (iii) 2,05,800 (iv) 2,05,806
5. The smallest 4-digit number having three different digits is :
(i) 1,000 (ii) 1,203 (iii) 1,023 (iv) 1,002
6. Ten million is the same as :
(i) ten lakh (ii) one crore (iii) ten crore (iv) none of these
7. Ten lakh is equal to :
(i) one million (ii) one billion (iii) two million (iv) none of these
8. The smallest 5-digit number having three different digits is :
(i) 99,978 (ii) 10,022 (iii) 11,102 (iv) 10,002
9. The face-value of 5 in the numeral 9,52,386 is :
(i) 500 (ii) 5 (iii) 5000 (iv) 50
10. The product of the place-value and the face value of 3 in the number 2,346 is:
(i) 1030 (ii) 346 (iii) 900 (iv) 306

Date :

Teacher's Signature :

Knowing Our Numbers

Assignment 4

Tick (✓) mark the correct answer in each case :

1. XC is equivalent to :
(i) 109 (ii) 90 (iii) 110 (iv) 99
2. When 4,231 is rounded off to the nearest thousands, we get :
(i) 4,200 (ii) 4,230 (iii) 4,000 (iv) none of these
3. 5 crore is equal to :
(i) 5 million (ii) 50 million (iii) 5,000 million (iv) 500 million
4. 15 l is equal to :
(i) 1,500 ml (ii) 150 ml (iii) 15,000 ml (iv) none of these
5. The smallest 4-digit number using any four different digits with the condition that the digit 7 is always at ones place is :
(i) 1,027 (ii) 1,237 (iii) 9,877 (iv) 9,876
6. The Roman numeral corresponding to 99 is :
(i) XCIX (ii) XCXI (iii) XCI (iv) IXC
7. The number corresponding to $80,000 + 7,000 + 300 + 20 + 1$ is :
(i) 8,07,321 (ii) 87,321 (iii) 8,70,321 (iv) 8,73,021
8. The greatest 5-digit number using two different digits is :
(i) 99,988 (ii) 99,998 (iii) 89,989 (iv) 98,989
9. How many hundreds are there in 2,56,000?
(i) 256 (ii) 2,056 (iii) 2,560 (iv) 560
10. On rounding off 7,32,481 to the nearest thousands, we get :
(i) 7,33,000 (ii) 7,32,000 (iii) 7,00,000 (iv) 7,30,000

Date :

Teacher's Signature :

WHOLE NUMBERS

OUTLINE OF THE CHAPTER

1. The counting numbers 1, 2, 3, are called natural numbers.
2. The counting numbers and zero i.e., 0, 1, 2, 3, are called whole numbers.
3. The smallest natural number is 1 and the smallest whole number is 0.
4. If we add 1 to a whole number, we get its successor. If we subtract 1 from a whole number, we get its predecessor.
5. Every whole number has its successor.
6. Every natural number except 1 has its predecessor. Every whole number except 0 has its predecessor.
7. Every natural number is a whole number, but 0 is a whole number which is not a natural number.
8. A whole number on the number line is greater than the whole number on its left.
9. A whole number on the number line is smaller than the whole number on its right.
10. Whole numbers are closed under addition and also under multiplication. However, whole numbers are not closed under subtraction and under division.
For example $4 + 7 = 11$ is a whole number, $8 \times 7 = 56$ is a whole number. But $9 - 15$ is not a whole number and also $14 \div 5$ is not a whole number.
11. Division by 0 is not defined.
12. Addition and multiplication are commutative for whole numbers. However, whole numbers are not commutative under subtraction and under division.
For example, $5 + 8 = 8 + 5$, $9 \times 10 = 10 \times 9$ but $14 - 6 \neq 6 - 14$
and $10 \div 5 \neq 5 \div 10$
13. Addition and multiplication, both are associative for whole numbers.
For example, $5 + (8 + 11) = (5 + 8) + 11$ and $4 \times (10 \times 16) = (4 \times 10) \times 16$
14. Multiplication is distributive over both addition and subtraction.
For example, $8 \times (15 + 21) = 8 \times 15 + 8 \times 21$
and $6 \times (54 - 24) = 6 \times 54 - 6 \times 24$
15. 0 is the identity for addition of whole numbers. 1 is the identity for multiplication of whole numbers.



Whole Numbers

Assignment 5

Answer the following questions :

1. What is the smallest natural number? _____
2. Is there any natural number that has no predecessor? _____
3. Write the predecessor and the successor of 49. _____
4. What is the predecessor of the whole number 1? _____
5. What is the smallest whole number? _____
6. Are all whole numbers also natural numbers? _____
7. Which whole number is the predecessor of 7,000? _____
8. Is every natural number a whole number? _____
9. Which whole number is the successor of 299? _____
10. Are whole numbers closed under addition? _____
11. What is the successor of 1000? _____
12. Which whole number is not a natural number? _____
13. Do we have the largest whole number? _____
14. Whole numbers are not commutative under multiplication. Is it true?

15. Write the predecessor of one million. _____
16. Are whole numbers associative under subtraction? _____
17. How many whole numbers are there between 21 and 31? _____
18. What is the successor of 1,99,999? _____
19. How many whole numbers are there upto 50? _____
20. How many natural numbers are there upto 50? _____

Date :

Teacher's Signature :

Assignment 6

Whole Numbers

Answer the following questions :

1. Find the sum of 645, 287 and 113. _____
2. What is the multiplicative identity of whole numbers? _____
3. What is the difference between 56 and 37? _____
4. Find the value of $4 + 4 + 4$ up to 9 terms. _____
5. What do we get when we add the additive identity to a whole number?

6. Find the value of $1,573 \div 1,573 - 1,573 \div 1,573$. _____
7. Find the difference between 895 and the number obtained by reversing the digits. _____
8. Find the sum of the greatest number of 3-digits and the smallest number of 4-digits. _____
9. Division is the inverse of multiplication. Is it true? _____
10. Find the product of $25 \times 4 \times 384$. _____
11. Name the property used :
 $35 \times (12 \times 18) = (35 \times 12) \times 18$. _____
12. What is the maximum number of digits in the sum if we add any two 3-digit numbers? _____
13. Find the difference between the greatest 4-digit number and the smallest 4-digit number. _____
14. Is the product of two whole numbers again a whole number? _____
15. How much more than 595 is 687? _____
16. Are whole numbers closed under division? _____
17. In a division sum, the dividend, divisor and quotient are the same. Find the dividend. _____
18. Find the value of $316 \times 15 - 316 \times 5$. _____
19. Find the value of
(i) $57,292 \div 1$ _____ (ii) $0 \div 8,862$ _____
20. Find the value of $29 \times 45 \times 0 \times 136$. _____

Date :

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Whole Numbers

Assignment 7

Answer the following questions :

1. Find the value of $980 + 5720 \div 10$. _____
2. Find the product of $358 \times 25 \times 10 \times 4$ by suitable rearrangement. _____
3. How much less than 625 is 426? _____
4. How many whole numbers are there upto 500? _____
5. Is the product of an even whole number and an odd whole number an odd whole number? _____
6. Find the difference between the smallest whole number and the smallest natural number. _____
7. Is there any natural number which has no successor? _____
8. Determine the sum : $1 + 2 + 3 + 4 + 96 + 97 + 98 + 99$. _____
9. Write the successor of 10,05,999 _____
10. Complete : $1,946 + \underline{\hspace{2cm}} = 387 + 1,946$
11. Find the product of the smallest 3-digit number and the greatest 3-digit number. _____
12. Is the sum of any two odd numbers an odd number? _____
13. Find the value of $458 + 620 \div 62$. _____
14. Are whole numbers closed under multiplication? _____
15. Find the value of $53 \times 17 - 40 \times 17 - 3 \times 17$. _____
16. What do we get if we multiply a whole number and the multiplicative identity? _____
17. Find the number which when divided by 20, gives the quotient 4 and remainder 2. _____
18. Complete : $9 + (225 + 107) = (9 + 225) + \underline{\hspace{2cm}}$
19. Determine : $2 + 3 + 4 + 5 + 45 + 46 + 47 + 48$. _____
20. 0 is multiplicative identity for whole numbers and 1 is additive identity for whole numbers. Is it true? _____

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Assignment 8

Whole Numbers

Answer the following questions :

1. Write the predecessor of 72,00,000. _____
2. Find the difference between the largest 3-digit number and the largest 4-digit number. _____
3. How many whole numbers are there upto 1000? _____
4. Find the product of $4 \times 1,837 \times 250$. _____
5. What type of number is the product of two even numbers? _____
6. Find the value of $4,560 - 120 \times (200 \div 40)$. _____
7. Find the value of $450 \times 7 + 750 \times 7$. _____
8. Out of any two whole numbers on the number line, the number on the right of the other number is greater. Is it true? _____
9. Name the property used : $15 \times 104 = 15 \times (100 + 4) = 15 \times 100 + 15 \times 4$.

10. Addition and multiplication are commutative for whole numbers. Is it true?

11. Evaluate : Predecessor of 99 + successor of the smallest 2-digit number.

12. Find : $500 + 20 + 5 +$ successor of 0. _____
13. Is there any natural number which when added to itself gives that number?

14. Is there any whole number which when added to itself gives that number?

15. Use the most convenient combination to find the sum.
 $7,013 + 22 + 2345 + 287 + 655 + 678$ _____
16. What should be subtracted from 8,203 to get the result as 1,913? _____
17. Find : Predecessor of the successor of 11 – Successor of the predecessor of 9.

18. Some numbers can be arranged as squares. Write down the first 4 square numbers. _____
19. Find the value of $8,165 \times 169 - 8,165 \times 69$. _____
20. Is the product of two odd whole numbers an even whole number? _____

Date :

Teacher's Signature :

Whole Numbers

Assignment 9

Tick (✓) mark the correct answer in each case :

1. The value of $56 \times 64 + 56 \times 36$:
(i) 56 (ii) 560 (iii) 5,600 (iv) 6,500
2. The value of $873 - 528 \div 528$:
(i) 872 (ii) 873 (iii) 528 (iv) none of these.
3. The product of two whole numbers is again a whole number. We say that whole numbers are :
(i) closed under addition (ii) commutative for addition
(iii) closed under multiplication (iv) none of these
4. The value of $0 \div 11$ is :
(i) 1 (ii) 11 (iii) 0 (iv) not defined.
5. The value of $11 \div 0$ is :
(i) 1 (ii) 11 (iii) 0 (iv) not defined.
6. Division is the inverse of :
(i) subtraction (ii) addition
(iii) multiplication (iv) none of these
7. The difference between 927 and the number obtained by reversing the digits is :
(i) 195 (ii) 198 (iii) 201 (iv) none of these
8. Whole numbers are not commutative for :
(i) addition (ii) division (iii) multiplication (iv) none of these
9. $625 \times 132 = 625 \times (100 + 30 + 2) = 625 \times 100 + 625 \times 30 + 625 \times 2$ shows :
(i) associativity (ii) commutativity
(iii) closure property
(iv) distributivity of multiplication over addition
10. Two whole numbers are such that one is two times the other. If their difference is 15, their sum is :
(i) 15 (ii) 30 (iii) 45 (iv) 60

Date :

Teacher's Signature :

Assignment 10

Whole Numbers

Tick (✓) mark the correct answer in each case :

1. The difference between the smallest whole number and the smallest natural number is _____.
(i) 0 (ii) 1 (iii) 100 (iv) none of these
2. $222 + 333 + 444 + 555$ is equal to :
(i) 111×11 (ii) 111×12
(iii) 111×13 (iv) 111×14
3. Two whole numbers are such that one is three times the other. If their sum is 16, their difference is :
(i) 4 (ii) 6 (iii) 8 (iv) 10
4. In a division sum, remainder is always less than :
(i) quotient (ii) divisor (iii) 1 (iv) none of these
5. Division is repeated :
(i) addition (ii) subtraction
(iii) multiplication (iv) none of these
6. Any non-zero whole number divided by itself gives the quotient :
(i) 1 (ii) 0 (iii) 2 (iv) not defined
7. The predecessor of 83,50,000 is :
(i) 83,49,000 (ii) 83,49,900 (iii) 83,49,990 (iv) 83,49,999
8. The difference of two consecutive odd numbers is :
(i) 0 (ii) 1 (iii) 3 (iv) 2
9. The maximum number of digits in the sum if we add any two 4-digit numbers is :
(i) 3 (ii) 4 (iii) 5 (iv) 4
10. The sum of two whole numbers is again a whole number. We say that :
(i) whole numbers are closed under addition
(ii) addition is commutative for whole numbers
(iii) addition is associative for whole numbers
(iv) whole numbers are closed under multiplication

Date :

Teacher's Signature :

PLAYING WITH NUMBERS

OUTLINE OF THE CHAPTER

1. A factor of a number is an exact divisor of that number.
2. A multiple of a number is exactly divisible by the number. A number is a multiple of each of its factors.
3. 1 is a factor of every number.
4. Every number is a factor of itself.
5. Every factor is less than or equal to the given number. The greatest factor of a non-zero number is the number itself.
6. The number of factors of a number is finite.
7. Every number is a multiple of itself.
8. Every multiple of a number is greater than or equal to that number.
9. The number of multiples of a given number is infinite.
10. A number which is divisible only by 1 and itself is called a prime number. Thus, a prime number has exactly two factors, 1 and the number itself. For example, 11 is a prime number, since it has only two factors 1 and 11.
11. 2 is the only even prime number. Every prime number other than 2 is odd. The smallest prime number is 2.
12. Numbers having more than two factors are known as composite numbers. 1 is neither a prime nor a composite number. For example, 15 is a composite number, since its factors are 1, 3, 5 and 15.
13. A number for which sum of all its factors is equal to twice the number is called a perfect number. For example, 6 is a perfect number, since sum of its factors is $1 + 2 + 3 + 6 = 12 = 2 \times 6$.
14. Two consecutive odd prime numbers are known as twin primes, e.g., 11 and 13.
15. A set of three prime numbers differing by 2 is called a prime triplet. The only prime triplet known so far is 3, 5, 7.
16. Two numbers are said to be co-prime, if they do not have a common factor other than 1.
For example, 12 and 25 are co-prime.
17. A number is divisible by :
 - (i) 2, if it has any of the digits 0, 2, 4, 6 or 8 in its units place.
For example, 86, 104, 1,250 are divisible by 2.

PLAYING WITH NUMBERS

- (ii) 3, if the sum of its digits is divisible by 3.

For example, 1,962 is divisible by 3, since sum of its digits $1 + 9 + 6 + 2 = 18$ is divisible by 3.

- (iii) 4, if the number formed by its last two digits (i.e. tens and units digits) is divisible by 4.

For example, 26,356 is divisible by 4 since 56 is divisible by 4.

- (iv) 5, if it has either 0 or 5 in its units place.

For example, 1,250 and 72,185 are divisible by 5.

- (v) 6, if the number is divisible by 2 and 3 both.

For example, 3,924 is divisible by 6 since it is divisible by both 2 and 3.

- (vi) 8, if the number formed by its last three digits is divisible by 8.

For example, 52,168 is divisible by 8 since 168 is divisible by 8.

- (vii) 9, if the sum of the digits of the number is divisible by 9.

For example, 48,708 is divisible by 9, since sum of its digits $4 + 8 + 7 + 0 + 8 = 27$ is divisible by 9.

- (viii) 10, if it has 0 in the units place, e.g., 290, 17,250 etc are divisible by 10.

- (ix) 11, if the difference of the sum of its digits in odd places and the sum of its digits in even places (starting from units place) is either 0 or divisible by 11.

For example, consider 3,59,348. Sum of its digits in odd places $= 8 + 3 + 5 = 16$ and sum of its digits in even places $= 4 + 9 + 3 = 16$. Difference of the two sums $= 16 - 16 = 0$. Hence, 3,59,348 is divisible by 11.

18. A number divisible by two co-prime numbers is divisible by their product also.

For example, 144 is divisible by both 8 and 9. So, 144 is also divisible by $9 \times 8 = 72$.

19. A factorisation in which every factor is prime is called the prime factorisation of the number. A number greater than 1 has exactly one prime factorisation.

For example, prime factorisation of 72 is $2 \times 2 \times 2 \times 3 \times 3$.

20. The highest common factor (HCF) of two or more given numbers is the highest (or greatest) of their common factors.

21. The lowest common multiple (LCM) of two or more given numbers is the lowest of their common multiples.

22. The product of HCF and LCM of two numbers is equal to the product of the numbers.



Playing with Numbers

Assignment 11

Answer the following questions :

1. Which of the following are composite numbers?
81, 29, 53, 322, 375 _____
2. Which of the following are prime numbers?
9, 17, 23, 91, 59 _____
3. A factor of a number is an exact divisor of that number. Is it true?

4. Which number is a factor of every number? _____
5. 67 is a prime number. What are the factors of 67? _____
6. Which is the smallest prime number? _____
7. Which is the largest 2-digit prime number? _____
8. Write the H.C.F. of 4 and 6. _____
9. What are the prime factors of 15? _____
10. Find the L.C.M. of 12, 10 and 15? _____
11. Write the prime factorisation of 48. _____
12. Can we have a multiple of a number which is less than the number?

13. How many prime numbers are there? _____
14. What is the eighth multiple of 12? _____
15. Express 84 as the sum of two primes. _____
16. Write the smallest odd composite number. _____
17. Express 25 as the sum of 3 odd primes. _____
18. Numbers 13 and 31 are both primes and are formed by the same digits. Name three other such pairs of 2-digit prime numbers having the same digits.

19. Write the smallest perfect number. _____
20. Write the number which is neither prime nor composite. _____

Date :

Teacher's Signature :

Assignment 12

Playing with Numbers

Answer the following questions :

1. How many prime numbers are there upto 100? _____
2. Find all the multiples of 18 upto 100. _____
3. Write the prime factorisation of 72. _____
4. How many even numbers are prime? _____
5. Every prime number is odd. Is it true? _____
6. Write five consecutive composite numbers less than 30 which have no prime number between them. _____
7. Express 36 as the sum of two odd primes. _____
8. Replace '*' by smallest possible digit so that $29 *$ is divisible by 4. _____
9. Write all 1-digit natural numbers which have exactly three factors.

10. Write any two pairs of twin primes between 1 and 50. _____
11. Find the L.C.M. of 24 and 40. _____
12. Replace * by the smallest digit so that $27 * 35$ is divisible by 9. _____
13. Is 8,239 divisible by 11? _____
14. Express 96 as the sum of two odd primes. _____
15. What is the H.C.F. of any two consecutive numbers? _____
16. What is the H.C.F. of two consecutive even numbers? _____
17. Write the next two multiples : 24, 48, 72, _____
18. Two even numbers can be co-prime. Is it true? _____
19. Write two numbers, which are divisible by 2 but not by 4. _____
20. Express 47 as the sum of 3 odd primes. _____

Date :

Teacher's Signature :



Playing with Numbers

Assignment 13

Answer the following questions :

1. If a number is divisible by two co-prime numbers, then it is divisible by their product also. Is it true? _____
2. Is a number divisible by 4 also divisible by 2? _____
3. How many prime numbers are there between 1 and 20? _____
4. What is the L.C.M. of any two consecutive odd numbers? _____
5. Which natural number has only one factor? _____
6. How many prime factorisations can a number have? _____
7. How many composite numbers lie between 2 and 20? _____
8. Is 2,180 divisible by 8? _____
9. Find the H.C.F. of 25 and 125. _____
10. How many multiples can a number have? _____
11. Every factor is less than or equal to the given number. Is it true? _____
12. Express 60 as the sum of two prime numbers. _____
13. Write down the numbers between 20 and 40 which have exactly two factors. _____
14. A fraction is in its lowest terms. What is the H.C.F. of its numerator and denominator? _____
15. Is 1,368 divisible by 3? _____
16. Find the prime factorisation of 54. _____
17. Replace * by the least digit, so that, $12 * 2$ is divisible by 4. _____
18. Is 4,014 divisible by 9? _____
19. How many prime numbers lie between 90 and 100? _____
20. A number divisible by 9 and 10 is also divisible by 90. Is it true? _____

Date :

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Assignment 14

Playing with Numbers

Tick (✓) mark the correct answer in each case :

1. The number which is neither prime nor composite is :
(i) 7 (ii) 0 (iii) 1 (iv) 5
2. The largest pair of twin primes below 100 is :
(i) 71 and 73 (ii) 87 and 89
(iii) 89 and 97 (iv) 73 and 79
3. A number is divisible by 4, if the number formed by its digits in tens and units places is divisible by :
(i) 20 (ii) 4 (iii) 8 (iv) 9
4. L.C.M. of 8 and 6 is :
(i) 2 (ii) 22 (iii) 21 (iv) 24
5. The largest 3-digit number which is exactly divisible by 3 is :
(i) 999 (ii) 996 (iii) 992 (iv) none of these
6. A number is divisible by 9, if the sum of its digits is divisible by :
(i) 3 (ii) 7 (iii) 9 (iv) 10
7. H.C.F. of 2, 4 and 8 is :
(i) 2 (ii) 4 (iii) 8 (iv) 16
8. A prime number between 74 and 80 is :
(i) 79 (ii) 77 (iii) 75 (iv) none of these
9. A prime number is the number which :
(i) has exactly one factor (ii) has exactly two factors
(iii) is not divisible by 2 (iv) is not divisible by 3
10. Which of the following is a prime number?
(i) 161 (ii) 111 (iii) 139 (iv) 203

Date :

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Playing with Numbers

Assignment 15

Tick (✓) mark the correct answer in each case :

1. L.C.M. of 2, 4 and 8 is :
(i) 2 (ii) 8 (iii) 4 (iv) 64
2. The prime factors of 204 are :
(i) 2, 2, 3, 17 (ii) 2, 6, 17
(iii) 1, 2, 3, 34 (iv) none of these
3. Every number is a factor of :
(i) 1 (ii) 0 (iii) itself (iv) none of these
4. A number for which sum of all its factors is equal to twice the number is called:
(i) a prime number (ii) a composite number
(iii) an odd number (iv) a perfect number
5. Which of the following numbers are co-primes :
(i) (14, 35) (ii) (18, 25) (iii) (31, 93) (iv) (24, 62)
6. A number is said to be composite if it has :
(i) only 1 factor (ii) more than two factors
(iii) exactly two factors (iv) none of these
7. How many prime numbers are there between 80 and 90?
(i) 1 (ii) 2 (iii) 3 (iv) 4
8. The H.C.F. of the denominator and the numerator of a fraction which is in its lowest terms is :
(i) 1 (ii) always an even number
(iii) always an odd number (iv) not determinable
9. Composite numbers have :
(i) only one factor (ii) exactly two factors
(iii) more than two factors (iv) none of these
10. The number which is divisible by 9 is :
(i) 4,282 (ii) 3,923 (iii) 8,234 (iv) 8,955

Date :

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BASIC GEOMETRICAL IDEAS

OUTLINE OF THE CHAPTER

1. A point determines a location. It has neither length nor breadth nor height.
2. The shortest distance between two points gives a line segment. The line segment joining points A and B is denoted by \overline{AB} .
3. A straight line extends indefinitely in both directions. It has no definite length.
4. If two lines have one common point, they are called intersecting lines. The common point is called their point of intersection.
5. Two lines are said to be parallel if they do not meet.
6. A ray is a portion of a line. It starts at one point (called starting point) and goes endlessly in one direction.
7. A curve is said to be closed if its ends are joined, otherwise it is said to be open.
8. A closed figure made up entirely of line segments is called a polygon.
9. In a polygon :
 - (i) the line segments are sides of the polygon.
 - (ii) any two sides with a common end point are adjacent sides.
 - (iii) the meeting point of a pair of sides is called a vertex.
 - (iv) the end points of the same side are adjacent vertices.
 - (v) the join of any two non-adjacent vertices is a diagonal.
10. An angle is a figure formed by two rays with the same initial point. The common initial point is called the vertex of the angle and the rays forming the angle are called its arms or sides.
11. A three sided polygon is called a triangle.
12. A four sided polygon is called a quadrilateral. It has four vertices, four sides, four angles and two diagonals.
13. A circle is a closed curve, all points on which are at the same distance from a fixed point inside it. The fixed point is called the centre of the circle.
14. The line segment joining the centre to any point on the circle is called the radius of the circle.



BASIC GEOMETRICAL IDEAS

15. A line segment joining any two points on a circle is called a chord of the circle.
16. A chord passing through the centre of a circle is a diameter of the circle. A diameter is the longest chord of a circle.
17. Length of a diameter is twice the radius of the circle.
18. A line intersecting a circle at two distinct points is called a secant of the circle.
19. An arc is a portion of the circle.
20. A region in the interior of a circle enclosed by an arc on one side and a pair of radii on the other two sides is called a sector of the circle.
21. A region in the interior of a circle enclosed by a chord and an arc is called a segment of the circle.
22. The distance around a circle is its circumference.
23. A diameter of a circle divides it into two equal parts, and each part is a semi-circle.

Assignment 16

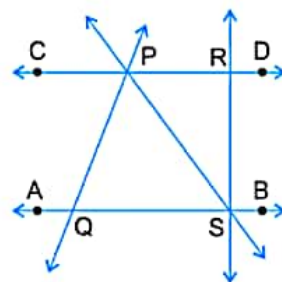
Basic Geometrical Ideas

Answer the following questions :

- Identify parallel and intersecting lines :
 - Tracks of a railway line. _____
 - Adjacent edges of a book. _____
 - Opposite edges of your book. _____
- How many lines can you draw through a given point? _____
- How many lines can you draw through two given points? _____
- How many lines can you draw through three given points taking two at a time, if the points are
 - collinear _____
 - non-collinear _____
- Is ray AB different from ray BA? _____
- In the adjoining figure, name :
 - Four pairs of intersecting lines

 - Four collinear points _____
 - Two rays starting from P. _____
 - Two line segments _____
 - Three lines whose point of intersection is P. _____
- An angle is a polygon. Is it true? _____
- Name all the pairs of opposite sides of the polygon ABCD? _____
- Do $\angle ABC$ and $\angle ACB$ represent the same angle? _____
- Radius of a circle is also a chord of the circle. Is it true? _____
- A line has no fixed length while a line segment has a fixed length. Is it true?

- What is the starting point of ray XY? _____



Date :

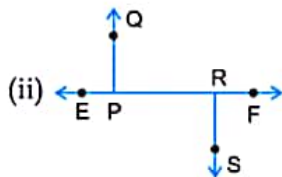
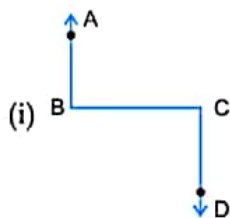
Teacher's Signature :

Basic Geometrical Ideas

Assignment 17

Answer the following questions :

1. Identify parallel lines in the figures given below :



2. A and B are two points. How many line segments can be drawn by joining these two points? _____

3. Write 'true' or 'false' :

(i) A line segment is a portion of a line. _____

(ii) A line segment has no end point. _____

(iii) A line segment has a fixed length. _____

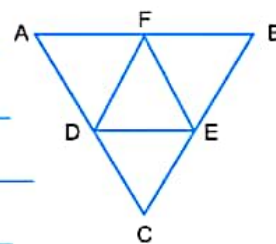
4. How many angles are shown in the figure given?

Name them. _____



5. How many rays can be drawn through a given point? _____

6. Name all the triangles in the figure given. _____



7. $\angle ABC$ can also be denoted as $\angle CAB$. Is it true? _____

8. Is every diameter of a circle also a chord? _____

9. Consider the given figure and answer the questions :

(i) Is it a curve ? _____

(ii) Is it closed? _____



10. How many diagonals does a triangles have? _____

Date :

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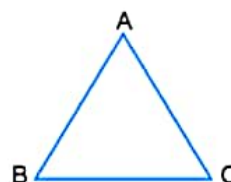
Assignment 18

Basic Geometrical Ideas

Answer the following questions :

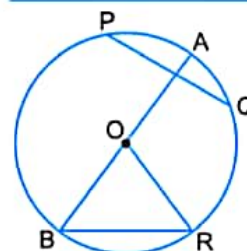
1. Observe the figure alongside and write the name of :

- the sides of the triangle. _____
- the angles of the triangle. _____
- the vertices of the triangle. _____
- the triangle in three different ways. _____



2. In the figure, O is the centre of the circle. Name

- the chords _____
- the radii _____
- the diameter _____



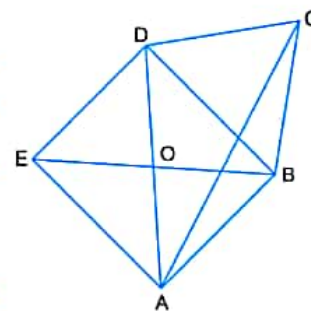
3. In the figure :



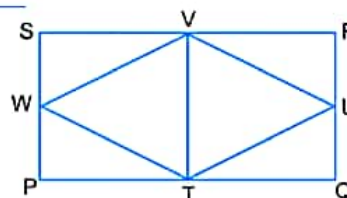
- Is ray CD different from ray DC? _____
 - Name the ray opposite to ray CE. _____
 - Is ray BC same as ray BE? _____
4. Can you draw a polygon with two line segments? _____

5. In the adjoining polygon, name the following :

- Vertices _____
- Pairs of adjacent vertices. _____
- Sides _____
- Pairs of adjacent sides _____
- Diagonals _____



6. Count the triangles in the following figure :



7. Can two lines intersect in more than one point? _____

Date :

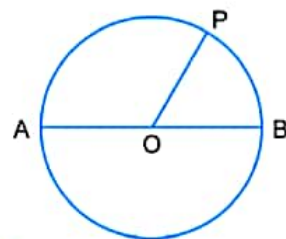
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Basic Geometrical Ideas

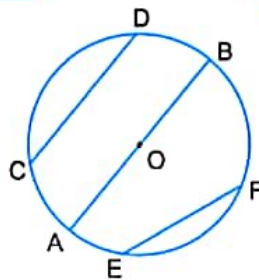
Assignment 19

Answer the following questions :

1. How many diagonals does a quadrilateral have? _____
2. Name the longest chord of a circle. _____
3. Is every chord of a circle also a diameter? _____
4. In the figure, O is the centre of the circle.
 - (a) What is OP? _____
 - (b) What is AB? _____
 - (c) If $OP = 2$ cm, find AB. _____



5. In the figure, O is the centre of the circle.
 - (a) What is AB? _____
 - (b) What is CD? _____
 - (c) What is EF? _____



6. Fill in the blanks :

O is the centre of a circle. T, P are any two points on the circle. OT is called _____. OP is called _____. TP is called _____.

7. Using symbol write the following statement : 'line AB is parallel to line CD'.

8. Two lines which never intersect are parallel. Is it true? _____

9. Fill in the blanks :

- (a) A quadrilateral has _____ sides.
- (b) A quadrilateral has _____ angles.
- (c) A quadrilateral has _____ diagonals.

10. From a given point P on the circle.

- (a) how many chords can be drawn? _____
- (b) how many diameters can be drawn? _____

11. \overrightarrow{AB} and \overrightarrow{BA} denote the same ray while \overline{AB} and \overline{BA} denote different line segments. Is it true? _____

Date :

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Assignment 20

Basic Geometrical Ideas

Tick (✓) mark the correct answer in each case :

1. The region in the interior of a circle enclosed by an arc and a chord is called a:
(i) sector of the circle (ii) segment of the circle
(iii) diameter of the circle (iv) none of these.
2. Two lines intersect :
(i) at a point (ii) at infinite number of points
(iii) in a line (iv) at two points.
3. How many lines can be drawn to pass through two different points?
(i) 1 (ii) 2 (iii) 3 (iv) infinite.
4. A point has :
(i) length (ii) breadth
(iii) an exact position. (iv) one end-point.
5. A line has :
(i) one end point (ii) two end points
(ii) four end points (iv) no end points.
6. If l , m and n are the lines passing through a point P , then P is the point of :
(i) collinearity (ii) concurrence
(iii) non-collinearity (iv) none of these.
7. The two rays forming an angle are called the :
(i) vertices of the angle (ii) sides of the angle
(iii) boundary of the angle (iv) none of these.
8. All the points lying on the triangle as well as in the interior of the triangle form the :
(i) interior of the triangle (ii) exterior of the triangle
(iii) triangular region (iv) none of these.
9. An edge of a ruler gives an idea of a :
(i) place (ii) line (iii) point (iv) none of these.
10. The line segments joining the opposite vertices of a quadrilateral are called:
(i) adjacent sides (ii) opposite sides
(iii) diagonals (iv) none of these.

Date :

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UNDERSTANDING ELEMENTARY SHAPES

OUTLINE OF THE CHAPTER

1. The magnitude of an angle is the amount of rotation through which one of the arms must be rotated about the vertex to bring it to the position of the other arm.
2. When a ray OA makes a complete rotation about the initial point O and comes back to the original position, it is said to make a complete angle.
3. When the ray OA makes only a half turn, then the angle formed is called a straight angle.
4. When the ray OA makes only a quarter turn, then the angle formed is called a right angle.
5. We use protractor to measure angles in degrees.
6.
 - (i) Measure of a complete angle is 360° .
 - (ii) Measure of a straight angle is 180° .
 - (iii) Measure of a right angle is 90° .
 - (iv) Measure of a zero angle is 0° .
 - (v) Measure of an acute angle is more than 0° but less than 90° .
 - (vi) Measure of an obtuse angle is more than 90° but less than 180° .
 - (vii) Measure of a reflex angle is more than 180° but less than 360° .
7. Two intersecting lines are perpendicular if the angle between them is 90° .
8. A perpendicular to a line segment which divides it into two equal parts is called the perpendicular bisector of the line segment.
9.
 - (i) A triangle having three equal sides is called an equilateral triangle.
 - (ii) A triangle having two equal sides is called an isosceles triangle.
 - (iii) A triangle having three unequal sides is called a scalene triangle.
10.
 - (i) If each angle of a triangle is less than 90° , then the triangle is called an acute angled triangle.
 - (ii) If one angle of a triangle is a right angle, then the triangle is called a right triangle.
 - (iii) If any one angle of a triangle is greater than 90° , then the triangle is called an obtuse angled triangle.



UNDERSTANDING ELEMENTARY SHAPES

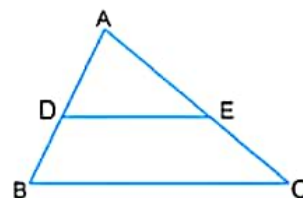
11. (i) All the angles of an equilateral triangle are equal.
(ii) Two angles of an isosceles triangle are equal.
(iii) All the angles of a scalene triangle are of different measures.
12. (i) In a rectangle, the opposite sides are parallel and equal. Each of its angles measures 90° and both the diagonals are of equal length which bisect each other.
(ii) In a square, all the sides are equal and each of its angles measures 90° . Its both the diagonals are equal and bisect each other at right angles.
(iii) In a parallelogram opposite sides are parallel and equal, and opposite angles are also equal. Its diagonals bisect each other.
(iv) In a rhombus, all the four sides are equal and opposite angles are also equal. Its diagonals bisect each other at right angles.
(v) In a trapezium a pair of opposite sides are parallel.
13. Polygons having 3, 4, 5, 6, 7 and 8 sides are called triangle, quadrilateral, pentagon, hexagon, septagon and octagon respectively.
14. A polygon is called regular if all its sides are of the same length and all its angles are of the same size.
15. (i) A cuboid has 12 edges, 8 vertices and 6 rectangular faces.
(ii) A cube has 12 edges, 8 vertices and 6 square faces.
(iii) A cylinder has 2 curved edges, 1 curved face and 2 flat faces.
(iv) A cone has 1 flat face, 1 curved face, 1 vertex and 1 curved edge.
(v) A sphere has 1 curved face.
(vi) A triangular pyramid is also called a tetrahedron. It has 4 faces, 6 edges and 4 vertices.
(vii) A square pyramid has 5 faces, 8 edges and 5 vertices.
(viii) A triangular prism has 5 faces, 9 edges and 6 vertices.

Understanding Elementary Shapes

Assignment 21

Answer the following questions :

1. In the figure, D is the midpoint of segment AB, E is the midpoint of segment AC, AB = 12 cm, BC = 15 cm and AC = 18 cm.

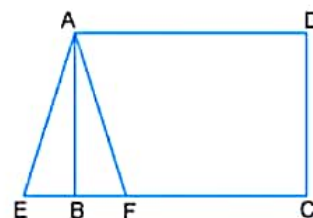


(i) What is the measure of \overline{AD} ? _____

(ii) What is the measure of \overline{EC} ? _____

(iii) What is the measure of \overline{DB} ? _____

2. In the figure, segment AB bisects EF and BC = 16 cm, EF = 8 cm.



(i) What is the measure of segment BF? _____

(ii) What is the measure of segment BE? _____

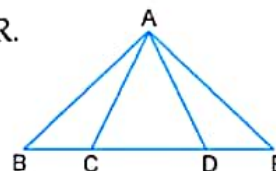
(iii) What is the measure of segment EC? _____

(iv) What is the measure of segment FC? _____

3. Four points P, Q, R and S are taken on a line such that QR = 2PQ and RS = 3PQ. If PQ = 2 cm, find PR and QR.



4. In the given figure, BE = 8 cm, BC = DE = AC, CD = 2 cm, AB = 2BC, AD = 4CD, AE = 2DE.



Find the length of

(i) AB _____ (ii) BC _____ (iii) AC _____ (iv) DE _____ (v) AE _____

5. Which instrument we use to measure an angle? _____

6. How many right angles are there in a complete angle? _____

7. Where will the hand of a clock stop if it starts at 7 and makes $\frac{1}{2}$ of a revolution clockwise? _____

8. The measure of a reflex angle is more than 180° but less than 360° . Is it true? _____

9. Can a triangle have two obtuse angles? _____

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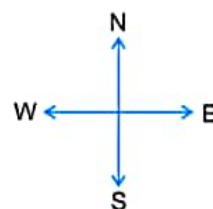
Teacher's Signature :

Assignment 22

Understanding Elementary Shapes

Answer the following questions :

1. What is the angle name for half a revolution? _____
2. What is the angle name for one-fourth revolution? _____
3. State the kind of angles formed between the directions given below:
 - (a) North and North-East _____
 - (b) South and East _____
 - (c) West and North _____
 - (d) East and South-West _____
4. The angle formed by the hands of a clock at 9 o'clock is 90° . Is it true? _____
5. If two sides of a triangle are equal, it has two equal angles. Is it true? _____
6. I have 3 equal sides and 3 equal angles. Who am I? _____
7. Name the quadrilateral which has just one pair of parallel sides. _____
8. Perpendicular lines are parallel to each other. Is it true? _____
9. Can a triangle have two right angles? _____
10. Is every rectangle a parallelogram? _____
11. Where will the hand of a clock stop if it starts at 4 and makes $\frac{1}{2}$ of a revolution? _____
12. A, B and C are three collinear points. Can a triangle be drawn by joining these points? _____
13. Can a triangle have all angles less than 60° ? _____
14. How many edges does a cuboid have? _____
15. How many sides does a pentagon have? _____



Date :

Teacher's Signature :

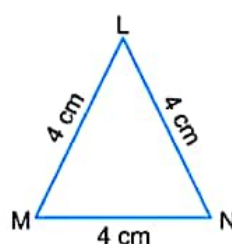
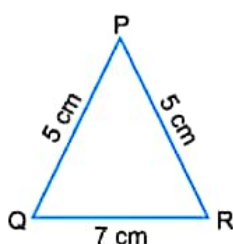
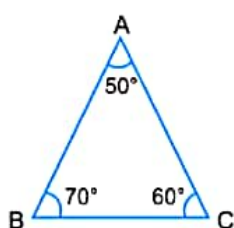
Understanding Elementary Shapes

Assignment 23

Answer the following questions :

1. What is the magnitude of the angle formed by the hands of a clock when it is 10 o'clock? _____
2. What type of triangle is it whose sides are 2 cm, 3 cm and 4 cm?

3. Look at the triangles given below and answer the following :



- (a) What type of triangle (obtuse-angled, acute-angled or right-angled) is the $\triangle ABC$? _____
 - (b) What type of triangle (equilateral, isosceles or scalene) is the $\triangle PQR$?

 - (c) What type of triangle (equilateral, isosceles or scalene) is the $\triangle LMN$?

 - (d) What is the measure of $\angle L$? _____
4. Find the angle measure between the hands of the clock at 6 o'clock.

 5. Where will the hand of a clock stop if it start at 12 and makes $\frac{1}{2}$ of a revolution, clockwise? _____
 6. How many right angles do you make if you start facing south and turn clockwise to west? _____
 7. Can a triangle have two obtuse angles? _____
 8. Every equilateral triangle is an acute angled triangle. Is it true?

 9. How many diagonals can a pentagon have? _____
 10. How many faces does a triangular pyramid have? _____

Date :

Teacher's Signature :

Assignment 24

Understanding Elementary Shapes

Answer the following questions :

1. The diagonals of a rhombus are equal. Is it true? _____
2. Name the type of triangle PQR such that $PQ = QR = PR = 5$ cm.

3. How many sides does a octagon have? _____
4. The diagonals of a rhombus are equal. Is it true? _____
5. What will be the measure of each angle of an equilateral triangle?

6. How many degrees are there in one-third of a right angle? _____
7. If you stand facing north and turn, in either direction through a complete revolution, in which direction are you facing? _____
8. Name the type of triangle whose sides are 7 cm, 9 cm and 13 cm.

9. The opposite sides of a rectangle are equal and parallel. Is it true?

10. Name the polygon which has 6 sides. _____
11. Fill in the blanks :
A triangular pyramid is also called a _____. It has _____ faces,
_____ edges and _____ vertices.
12. What is the another name for a rectangular prism? _____
13. Match the following :

(i) 3 sides of equal length	(a) Scalene triangle
(ii) 2 sides of equal length	(b) Equilateral triangle
(iii) All sides of different length	(c) Isosceles triangle
14. Name the quadrilateral which has equal diagonals that are perpendicular to each other. _____
15. Sum of the measures of two angles is that of a right angle. What kind of angle is each one of them? _____

Date :

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Understanding Elementary Shapes

Assignment 25

Tick (✓) mark the correct answer in each case :

1. How many parts does a triangle have?
(i) 0 (ii) 3 (iii) 2 (iv) 6
2. How many angles does a triangle have?
(i) one (ii) two (iii) three (iv) four
3. A triangle with all the three sides equal is called :
(i) an equilateral triangle (ii) an isosceles triangle
(iii) a scalene triangle (iv) none of these
4. The angle formed by the hands of a clock at 7 o'clock is :
(i) 120° (ii) 160° (iii) 140° (iv) 210°
5. The angles of a triangle are 70° , 65° and 45° . It is :
(i) an equilateral triangle (ii) an acute angled triangle
(iii) an obtuse angled triangle (iv) none of these
6. Diagonals of a quadrilateral are equal and bisect each other. It is a :
(i) square (ii) rhombus (iii) rectangle (iv) parallelogram
7. If the initial and final positions of a ray coincide without making any rotation, the angle formed is :
(i) a zero angle (ii) an acute angle
(iii) an obtuse angle (iv) none of these
8. An angle formed by the two opposite rays is called a :
(i) complete angle (ii) zero angle
(iii) straight angle (iv) right angle
9. $\angle ABC$ is same as :
(i) $\angle ABC$ (ii) $\angle CAB$ (iii) $\angle CBA$ (iv) none of these
10. If two lines are perpendicular to each other, then the angles between them is:
(i) 90° (ii) 45° (iii) 180° (iv) 0°

Date :

Teacher's Signature :

Assignment 26

Understanding Elementary Shapes

Tick (✓) mark the correct answer in each case :

1. The sides of a triangle are 10 cm, 6 cm and 6 cm. It is :
(i) an acute angled triangle (ii) an equilateral triangle
(iii) an isosceles triangle (iv) none of these
2. Each angle of an equilateral triangle measures :
(i) 40° (ii) 120° (iii) 50° (iv) 60°
3. An isosceles triangle has _____ equal sides.
(i) two (ii) three (iii) two or three (iv) none of these
4. A cuboid has _____ edges.
(i) 6 (ii) 8 (iii) 10 (iv) 12
5. A parallelogram having all the sides equal is called a _____.
(i) rhombus (ii) trapezium (iii) rectangle (iv) none of these
6. A triangular prism has :
(i) 9 faces (ii) 8 faces (iii) 7 faces (iv) 5 faces
7. A quadrilateral whose all the sides, diagonals and angles are equal is a :
(i) square (ii) rhombus (iii) rectangle (iv) trapezium
8. Each angle of a rectangle is :
(i) an obtuse angle (ii) an acute angle
(iii) a right angle (iv) none of these
9. Which direction will you face if you start facing East and make $1\frac{1}{4}$ of a revolution clockwise?
(i) South (ii) West (iii) East (iv) North
10. The number of right angles turned through by the hour hand of a clock when it goes from 1 to 10 is :
(i) 1 (ii) 2 (iii) 3 (iv) 4

Date :

Teacher's Signature :



INTEGERS

OUTLINE OF THE CHAPTER

1. The negative numbers, zero, and the natural numbers together are called integers. $-3, -2, -1$, are called negative integers, and $1, 2, 3, \dots$ are called positive integers. 0 is neither positive nor negative.
2. On the number line every negative integer lies to the left of 0 and every positive integer lies to the right of 0 .
3. Every positive integer is greater than every negative integer.
4. Zero is greater than every negative integer and smaller than every positive integer.
5. The farther a number from 0 on the right, the larger is its value. The farther a number from 0 on the left, the smaller is its value.
6. 1 is the smallest positive integer and -1 is the greatest negative integer.
7. The absolute value of an integer is its numerical value regardless of its sign.
8. To add two integers with like sign, add their absolute values and give the common sign to the sum so found. Thus, the sum of two positive integers is positive and the sum of two negative integers is negative.
9. To add two integers with unlike signs, find the difference between their absolute values and give the sign of the number with larger absolute value to the difference so found.
10. Two integers which when added together give 0 are called additive inverse of each other.
11. Additive inverse of 0 is 0 .
12. To subtract an integer from another integer, we add the additive inverse of the integer that is being subtracted to the other integer.

Assignment 27

Integers

Answer the following questions :

1. Write the successor of -15 . _____
2. Write the predecessor of 0 . _____
3. Write the opposite of 'Going 5 km to the East'. _____
4. Write the opposite of -84 . _____
5. How many integers are there between -5 and $+5$? _____
6. Write the additive inverse of -63 . _____
7. What should be added to -8 to get 0 as the result? _____
8. Which is smaller 5 or -5 ? _____
9. Is -26 larger than -25 ? _____
10. Subtract -8 from 7 . _____
11. Find the value of $-15 + 10$. _____
12. Write the greatest negative integer. _____
13. Write the integer which is -4 less than -5 . _____
14. Fill in the blanks : $8 + (-6) =$ _____
15. Subtract -780 from 0 . _____
16. Every negative integer is greater than 0 . Is it true? _____
17. What do we get if we add an integer to its additive inverse? _____
18. Which is greater : -115 or -110 ? _____
19. Write all integers between -3 and 3 . _____
20. Find the sum of -47 and 147 . _____

Date :

Teacher's Signature :

Integers

Assignment 28

Answer the following questions :

1. Find : $(-3) + 2 + (-1) =$ _____
2. Subtract 10 from -6. _____
3. Insert $>$ or $<$ in the box : 2 -3 .
4. Which is greater : 0 or -25 ? _____
5. Write the integer which is -4 more than -5 . _____
6. Write '100 m below sea level' with appropriate sign. _____
7. Write opposite of 'Loss of Rs 800'. _____
8. Is zero less than every positive integer? _____
9. Write the integer which is neither positive nor negative. _____
10. Fill in the blanks : $(-7) +$ _____ $= 0$
11. Write true or false : $-13 > -8 - (-2)$. _____
12. Write the successor of -2000 . _____
13. Write the smallest positive integer. _____
14. Write all integers between -5 and 2 . _____
15. The successor of a positive integer is always positive and the successor of a negative integer is always a negative integer. Is it true? _____
16. Write the integer which is 7 less than -3 . _____
17. Find the predecessor of -99 . _____
18. Find the value of $-17 - (-13)$. _____
19. The difference of two numbers is 21. If one of them is -42 , then find the other.

20. What must be added to -135 to get -142 ? _____

Date :

Teacher's Signature :

Assignment 29

Integers

Answer the following questions :

1. What is the opposite of 'moving 5 km to the North'? _____
2. Write the predecessor of -211. _____
3. Subtract 60 from - 80. _____
4. Determine two integers whose sum is 4 and whose difference is 4.

5. Fill in the blanks : $12 + \text{_____} = 0$.
6. Insert > or < in the box : $-104 \quad \square \quad -401$
7. Write all integers between -6 and 0. _____
8. Find the successor of -398. _____
9. Every positive integer is greater than every negative integer. Is it true?

10. The sum of two integers is 48. If one of them is - 24, determine the other.

11. Observe the pattern and write next three numbers :
-4, -7, -10 _____, _____, _____.
12. Find the integer which is 2 less than -21. _____
13. Find : $-1 + (-2) + (-3)$. _____
14. Which is greater : -95 or -59? _____
15. Find the sum of the greatest negative integer and the smallest positive integer.

16. What must be added to -75 to get 0? _____
17. Subtract 13 from -20. _____
18. Arrange -25, 16, -18, -3 in descending order : _____
19. Find : $-9 + (+13)$. _____
20. Find the sum of -56 and 56. _____

Date :

Teacher's Signature :

Integers

Assignment 30

Tick (✓) mark the correct answer in each case :

1. The integer which is neither positive nor negative :
(i) 0 (ii) 1 (iii) 2 (iv) none of these
2. The integer between -1 and 1 is :
(i) 2 (ii) -2 (iii) 0 (iv) -1
3. The difference of the smallest positive integer and the greatest negative integer is :
(i) 2 (ii) 0 (iii) 1 (iv) not determinable
4. 0 is the successor of :
(i) 1 (ii) 0 (iii) -1 (iv) not determinable
5. The predecessor of -99 is :
(i) 99 (ii) 100 (iii) -100 (iv) none of these
6. $-26 + (-27)$ is equal to :
(i) -1 (ii) 1 (iii) 53 (iv) -53
7. $23 - (-12)$ is equal to :
(i) 35 (ii) 11 (iii) -25 (iv) -11
8. The integer which is its own additive inverse is :
(i) 1 (ii) -1 (iii) 0 (iv) none of these
9. Every negative integer is less than :
(i) -1 (ii) 0 (iii) -2 (iv) none of these
10. The integer 5 more than -5 is :
(i) 0 (ii) 10 (iii) 5 (iv) -10

Date :

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Assignment 31

Integers

Tick (✓) mark the correct answer in each case :

1. The sum of 5 and -11 is :
(i) 6 (ii) -6 (iii) 16 (iv) -16
2. Additive inverse of -105 is :
(i) 0 (ii) 105 (iii) 501 (iv) none of these
3. All the integers between 0 and -4 are :
(i) $-1, 2, 3, -4$ (ii) $-1, 2, 3, 4$ (iii) 0, 1, 2, 3 (iv) $-1, -2, -3$
4. Sum of the greatest negative integer and the smallest positive integer is :
(i) 0 (ii) 1 (iii) -1 (iv) none of these
5. Opposite of -5 is :
(i) -25 (ii) 25 (iii) 5 (iv) none of these
6. The difference of -6 and 3 is :
(i) 9 (ii) -9 (iii) 3 (iv) -3
7. The successor of -57 is :
(i) -52 (ii) 52 (iii) 50 (iv) -56
8. The integer which is 4 more than -5 is :
(i) 1 (ii) -1 (iii) 0 (iv) none of these
9. As we move from any negative integer towards 0, the numbers :
(i) go on decreasing (ii) remain same
(iii) go on increasing (iv) none of these
10. The smallest negative integer is :
(i) 0 (ii) -1 (iii) 1 (iv) not determinable

Date :

Teacher's Signature :



FRACTIONS

OUTLINE OF THE CHAPTER

1. A fraction is a number representing a part of a whole. The whole may be a single object or a group of objects.
2. A fraction is comprised of two numbers separated by a horizontal line. The number above the horizontal line is called the numerator and the number below the horizontal line is called the denominator of the fraction.
3. Fractions can be shown on a number line.
4. Fractions with the same denominator are called like fractions and the fractions with different denominators are called unlike fractions. A fraction with numerator 1 is called a unit fraction.
5. A fraction whose numerator is less than its denominator is called a proper fraction and a fraction whose numerator is greater than or equal to its denominator is called an improper fraction.
6. A combination of a whole number and a proper fraction is called a mixed number.
7. When we multiply or divide the numerator and the denominator of a given fraction by the same number, we get its equivalent fraction.
8. If two fractions are equivalent, the product of numerator of the first and denominator of the second is equal to the product of denominator of the first and numerator of the second.
9. A fraction is said to be in the simplest (or lowest) form if its numerator and the denominator have no common factors other than 1.
10. (i) Of the two given like fractions, the fraction with greater numerator is greater.
(ii) Of the two fractions with the same numerator, the fraction with greater denominator is smaller.
(iii) To compare fractions with different numerators and different denominators, we change them into like fractions.
11. To add or subtract like fractions, we add or subtract their numerators to obtain the numerator of the required fraction. The denominator of the required fraction is the common denominator of the given fractions.
12. To add or subtract unlike fractions, we first change each of the given fractions into an equivalent fraction with a common denominator. This common denominator is the LCM of the denominators of the given fractions. Then we add or subtract the like fractions.

Assignment 32

Fractions

Answer the following questions :



- Write the fraction representing the shaded portion.

- Insert $>$ or $<$ in the box : $1 \square \frac{1}{2}$.
- Express 28 as a mixed fraction. _____
- In $\frac{4}{5}$, numerator is _____ and denominator is _____.
- Is the fraction $\frac{4}{15}$ in its lowest terms? _____
- Are $\frac{1}{3}$ and $\frac{2}{7}$ equivalent? _____
- Write the simplest form of $\frac{15}{75}$. _____
- Which is the larger : $\frac{3}{19}$ or $\frac{5}{19}$? _____
- Add : $\frac{3}{8}$ and $\frac{1}{8}$. _____
- Subtract : $1 - \frac{3}{7}$. _____
- Is $\frac{8}{8}$ an improper fraction? _____
- Find an equivalent fraction of $\frac{2}{3}$ with denominator 18. _____
- Fill in the box with correct number : $\frac{4}{7} = \frac{16}{\square}$.
- Express $5\frac{3}{7}$ as an improper fraction. _____
- Which is greater : $\frac{7}{15}$ or $\frac{7}{24}$? _____
- Find the equivalent fraction of $\frac{2}{5}$ with numerator 6. _____

Date :

Teacher's Signature :

Fractions

Assignment 33

Answer the following questions :

1. Ring the improper fractions : $\frac{5}{7}$ $\frac{2}{11}$ $\frac{14}{9}$ $\frac{11}{11}$ $\frac{7}{18}$
2. Express $2\frac{4}{11}$ as an improper fraction. _____
3. Express $\frac{27}{5}$ as a mixed number. _____
4. Is $\frac{20}{29}$ in its lowest terms? _____
5. Are $\frac{8}{15}$ and $\frac{9}{16}$ equivalent? _____
6. Encircle the fraction which is in its lowest terms : $\frac{4}{8}$ $\frac{2}{4}$ $\frac{1}{2}$ $\frac{5}{10}$
7. What fraction of an hour is 15 minutes? _____
8. A fraction is said to be in its lowest terms if its numerator and denominator have no common factor except 1. Is it true? _____
9. Which is greater : 1 or $\frac{15}{22}$? _____
10. Add $\frac{7}{5}$ and $\frac{4}{5}$. _____
11. Find the equivalent fraction of $\frac{5}{8}$ with denominator 24. _____
12. Arrange $\frac{11}{33}$, $\frac{11}{14}$, $\frac{11}{17}$, $\frac{11}{34}$ in ascending order : _____
13. Subtract $\frac{4}{9}$ from 1. _____
14. Insert > or < in the box : $\frac{5}{6}$ $\frac{4}{5}$ _____
15. Which is smaller : $\frac{7}{15}$ or $\frac{1}{5}$? _____
16. To find an equivalent fraction, we may divide both the numerator and the denominator by the same number. Is it true? _____

Date :

Teacher's Signature :

Assignment 34

Fractions

Answer the following questions :



1. How many halves are there in $2\frac{1}{2}$? _____
2. Write the fraction representing the shaded portion.

3. Write the fraction whose, numerator is 5 and denominator is 9.

4. Subtract $\frac{3}{4}$ from 1. _____
5. Convert $8\frac{1}{2}$ into an improper fraction. _____
6. Convert $\frac{63}{8}$ into a mixed number. _____
7. Find the sum : $\frac{1}{8} + \frac{2}{8} + \frac{3}{8}$. _____
8. What fraction of a day is 12 hours? _____
9. Find an equivalent fraction to $\frac{10}{30}$ having numerator 2. _____
10. Find the missing digit : $\frac{2}{7} = \frac{\boxed{}}{42}$
11. Reduce $\frac{45}{84}$ to its lowest terms. _____
12. Are $\frac{2}{5}$ and $\frac{10}{25}$ equivalent? _____
13. Add $\frac{7}{18}$ and $\frac{11}{18}$. _____
14. Of the two fractions with the same numerator, the fraction with greater denominator is smaller. Is it true? _____
15. Is $\frac{0}{5}$ an improper fraction? _____
16. Is $\frac{15}{22}$ in its lowest terms? _____

Date :

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Fractions

Assignment 35

Tick (✓) mark the correct answer in each case :

1. The numerator of the fraction $\frac{5}{6}$ is :
(i) 5 (ii) 6 (iii) $5 + 6$ (iv) 5×6
2. Fractions with the same denominator are called :
(i) like fractions (ii) unlike fractions
(iii) proper fractions (iv) none of these
3. A fraction with numerator 1 is called a :
(i) like fraction (ii) proper fraction
(iii) unit fraction (iv) mixed number.
4. A fraction whose numerator is greater than or equal to its denominator is called :
(i) a proper fraction (ii) an improper fraction
(iii) unit fraction (iv) mixed number
5. To get an equivalent fraction we may :
(i) add the numerator and the denominator
(ii) subtract the denominator from the numerator
(iii) divide the denominator by the numerator
(iv) multiply the numerator and the denominator by the same number.
6. $\frac{5}{17} + \frac{7}{17}$ is equal to :
(i) $\frac{2}{17}$ (ii) $\frac{12}{17}$ (iii) $\frac{35}{17}$ (iv) none of these
7. $\frac{3}{10} - \frac{1}{5}$ is equal to :
(i) $\frac{1}{10}$ (ii) $\frac{14}{10}$ (iii) $\frac{1}{2}$ (iv) $\frac{16}{50}$
8. $2\frac{4}{5}$ when expressed as an improper fraction is :
(i) $\frac{22}{5}$ (ii) $\frac{14}{5}$ (iii) $\frac{14}{4}$ (iv) $\frac{6}{5}$
9. $\frac{42}{5}$ when expressed as a mixed number is :
(i) $8\frac{1}{5}$ (ii) $5\frac{1}{8}$ (iii) $4\frac{2}{5}$ (iv) $8\frac{2}{5}$
10. Arranging $\frac{3}{5}, \frac{7}{10}, \frac{4}{15}$ in ascending order we get :
(i) $\frac{3}{5}, \frac{4}{15}, \frac{7}{10}$ (ii) $\frac{4}{15}, \frac{3}{5}, \frac{7}{10}$ (iii) $\frac{7}{10}, \frac{4}{15}, \frac{3}{5}$ (iv) $\frac{3}{5}, \frac{7}{10}, \frac{4}{15}$

Date :

Teacher's Signature :

Assignment 36

Fractions

Tick (✓) mark the correct answer in each case :

1. Arranging $\frac{11}{16}, \frac{11}{15}, \frac{11}{12}, \frac{11}{24}$ in descending order we get :
(i) $\frac{11}{12}, \frac{11}{15}, \frac{11}{16}, \frac{11}{24}$ (ii) $\frac{11}{24}, \frac{11}{16}, \frac{11}{15}, \frac{11}{12}$
(iii) $\frac{11}{15}, \frac{11}{16}, \frac{11}{24}, \frac{11}{12}$ (iv) $\frac{11}{12}, \frac{11}{15}, \frac{11}{24}, \frac{11}{16}$
2. The equivalent fraction of $\frac{2}{7}$ with denominator 21 is :
(i) $\frac{7}{21}$ (ii) $\frac{5}{21}$ (iii) $\frac{8}{21}$ (iv) $\frac{6}{21}$
3. The equivalent fraction of $\frac{5}{8}$ with numerator 25 is :
(i) $\frac{25}{40}$ (ii) $\frac{25}{8}$ (iii) $\frac{25}{80}$ (iv) $\frac{25}{3}$
4. $\frac{2}{5} + \frac{4}{5} + \frac{9}{5}$ is equal to :
(i) 1 (ii) 2 (iii) 3 (iv) 4
5. $1 - \left(\frac{3}{4} + \frac{1}{4}\right)$ is equal to :
(i) 1 (ii) $\frac{1}{2}$ (iii) $\frac{3}{2}$ (iv) 0
6. When $\frac{1}{5} + \frac{2}{5}$ is subtracted from 2, the result is :
(i) $\frac{3}{5}$ (ii) $\frac{7}{5}$ (iii) $\frac{6}{5}$ (iv) none of these
7. Which is the unit fraction?
(i) $\frac{15}{1}$ (ii) $\frac{1}{5}$ (iii) $\frac{3}{5}$ (iv) $\frac{5}{3}$
8. How many fractions lie between 0 and 1?
(i) none (ii) only 1 (iii) only 2 (iv) infinite
9. $\frac{20}{35}$ in its lowest terms is :
(i) $\frac{7}{4}$ (ii) $\frac{5}{7}$ (iii) $\frac{4}{7}$ (iv) $\frac{2}{5}$

Date :

Teacher's Signature :



DECIMALS

OUTLINE OF THE CHAPTER

1. The fractions in which the denominators are 10, 100, 1,000, 10,000 etc. are known as decimal fractions. Every fraction with 10, 100, 1,000, 10,000 etc. as denominators can be written in decimal notation and vice-versa.
2. A decimal has a whole number part and a decimal part which are separated by the decimal point.
3. In a decimal number, the number of digits contained in the decimal part gives its number of decimal places.
4. To convert a fraction having denominator 10 or 100 or 1,000 into a decimal, we write the numerator and mark decimal point after one place or two places or three places respectively from right towards left.

If the denominator is none of 10, 100 or 1,000, then we first convert the given fraction into an equivalent fraction with denominator 10, 100 or 1,000.

5. To convert a decimal into a fraction, we write the decimal without the decimal point as the numerator of the fraction. For the denominator, write 1 followed by as many zeros as there are decimal places in the given decimal. Simplify the fraction thus obtained.
6. Decimals having the same number of decimal places are called like decimals. Decimals having different number of decimal places are called unlike decimals.
7. Putting any number of zeroes to the extreme right side of the decimal part of a decimal does not change the value of the decimal.
8. To compare two decimals, we first convert them into like decimals and then compare their whole number parts. The decimal with greater whole number part is greater. If the whole number parts are equal, then compare their tenths digits. The decimal with bigger digit at tenths place is greater. If the tenths digits are equal, then compare the hundredths digits and so on.
9. To add or subtract decimals, we proceed as follows.
 - (i) Convert the given decimals into like decimals.
 - (ii) Write the decimals one below the other, so that the decimal points of all the decimals are in the same column. The digits having the same place values should be in the same column.
 - (iii) Add or subtract exactly as in the case of whole numbers.
 - (iv) In the sum or difference put the decimal point exactly below the decimal points in the given decimals.

Assignment 37

Decimals

Answer the following questions :

1. Write 7 tenths as a decimal. _____
2. Write $3 + \frac{7}{10}$ as a decimal. _____
3. Write $\frac{9}{10}$ as a decimal. _____
4. Convert 3.7 into a fraction. _____
5. Which is greater, 15.12 or 15.21? _____
6. Write $\frac{23}{100}$ as a decimal. _____
7. Using decimals, express 21 mm as cm. _____
8. Write 0.04 as a fraction in lowest terms. _____
9. Which is smaller, 1.23 or 1.2? _____
10. Express $600 + 2 + \frac{8}{10}$ as a decimal. _____
11. Using decimal, express 18 cm as m. _____
12. Express 20.15 in the expanded form. _____
13. Add 1.9 and 0.76 _____
14. Subtract 0.06 from 10.16. _____
15. Express 725 paise as rupees using decimal. _____
16. Between which two numbers in tenths place on the number line does 0.46 lie?

17. Write 21.015 in words. _____
18. Express 2 kg 700 g as kg using decimal. _____
19. Which is greater : 1 or 0.99? _____
20. Putting any number of zeroes to the extreme right side of the decimal part of a decimal does not change the value of the decimal. Is it true? _____

Date :

Teacher's Signature :

Decimals

Assignment 38

Answer the following questions :

1. Write eleven point seven two five in figures. _____
2. Write $43 + \frac{9}{100}$ as a decimal. _____
3. Write $\frac{121}{100}$ as a decimal. _____
4. Using decimal, express 10 cm 6 mm as cm. _____
5. Express $\frac{3}{5}$ as a decimal. _____
6. Which is greater : 1.008 or 1.800? _____
7. Express 888 m as km using decimal. _____
8. Find : $0.7 + 0.08$. _____
9. Express 0.001 as a fraction. _____
10. Write 72.508 in words : _____
11. Fill in the boxes : $152.83 = 100 + \boxed{} + 2 + \frac{\boxed{}}{10} + \frac{\boxed{}}{100}$
12. Using decimal, express 5 kg 125 g as kg. _____
13. Express 16 rupees 8 paise as rupees using decimal. _____
14. Express 205.001 in the expanded form. _____
15. Insert > or < in the box : 0.42 $\boxed{}$ 0.427 _____
16. Subtract 15.7 from 27.8. _____
17. Add : $3 + 0.3 + 0.33 + 0.333$ _____
18. Express 0.75 as a fraction in lowest terms. _____
19. Write $5\frac{1}{10}$ as a decimal. _____
20. Add 0.3 and 0.77 _____

Date :

Teacher's Signature :

Assignment 39

Decimals

Answer the following questions :

1. Write 'thirty and one-tenth as a decimal. _____
2. Write $600 + 5 + \frac{7}{10}$ as a decimal. _____
3. Write $\frac{24}{25}$ as a decimal. _____
4. Write 2.5 as a fraction. _____
5. Express 32 mm as cm using decimal. _____
6. Write 0.60 as a fraction in lowest terms. _____
7. Which is greater : 18.17 or 18.08? _____
8. Find : $1.56 + 2.24$. _____
9. Express 2580 g as kg using decimal. _____
10. Subtract : 23.75 from 50. _____
11. Fill in the blanks : 1.73 has _____ places of decimal.
12. Fill in the boxes : $235.29 = 200 + 30 + \square + \frac{\square}{10} + \frac{\square}{100}$
13. Express 50 rupees 90 paise as rupees using decimal. _____
14. Express 2,056 m as km using decimal. _____
15. Express 30.25 in the expanded form. _____
16. Between which two numbers in tenth place on the number line does 0.25 lie?

17. $23 + \frac{2}{10} + \frac{6}{1000} =$ _____
18. 8.07 m = _____ m _____ cm.
19. Rs 15.05 = Rs _____ and _____ p
20. Insert > or < in the box : 42.723 42.732.

Date :

Teacher's Signature :

Decimals

Assignment 40

Tick (✓) mark the correct answer in each case :

1. Five tens, seven tenths is written as :
(i) 5.7 (ii) 50.7 (iii) 50.70 (iv) 5.70
2. $200 + 60 + 5 + \frac{1}{10}$ can be expressed as :
(i) 265.1 (ii) 265.01 (iii) 265.001 (iv) 265.110
3. $4\frac{1}{2}$ can be expressed as :
(i) 0.45 (ii) 4.1 (iii) 4.5 (iv) 4.2
4. $\frac{17}{250}$ can be expressed as :
(i) 0.068 (ii) 6.8 (iii) 0.68 (iv) 17.250
5. $20 + 3 + \frac{5}{100}$ is equal to :
(i) 23.50 (ii) 23.05 (iii) 23.55 (iv) none of these
6. 0.065 when expressed as a fraction in its lowest terms is :
(i) $\frac{65}{10}$ (ii) $\frac{65}{100}$ (iii) $\frac{13}{20}$ (iv) $\frac{13}{200}$
7. 2.4 lies between the whole numbers :
(i) 2 and 3 (ii) 4 and 5 (iii) 6 and 7 (iv) 5 and 6
8. $0.3 + 0.33$ is equal to :
(i) 0.36 (ii) 0.63 (iii) 3.6 (iv) 36
9. The difference of 129.013 and 128 is :
(i) 1.013 (ii) 1.103 (iii) 1.301 (iv) 1.300
10. 1.056 kg can be expressed as :
(i) 1 kg 56 g (ii) 1 kg 560 g (iii) 1 kg 650 g (iv) none of these

Date :

Teacher's Signature :



DATA HANDLING

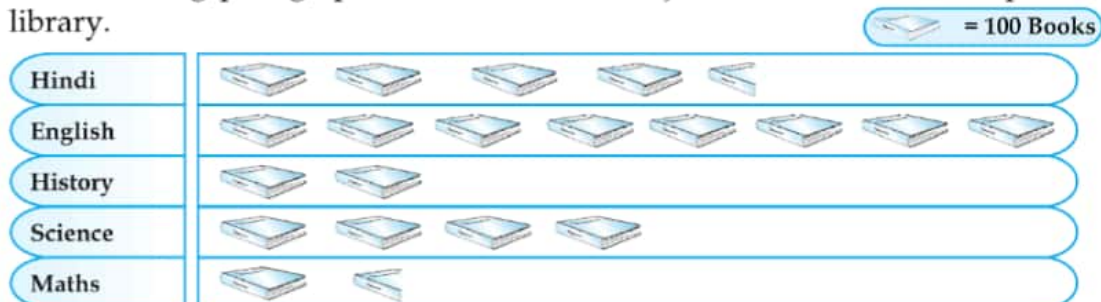
OUTLINE OF THE CHAPTER

1. Information in the form of numerical figures is called data. Or data means a collection of numbers gathered to give some information.
2. To get a particular information from the given data easily, the data can be arranged into a tabular form using tally marks.
3. Representation of data in the form of pictures is called pictograph.
4. A bar graph is a pictorial representation of data by a number of bars (rectangles) of uniform width erected horizontally or vertically with equal spacing between them.

Data Handling

Assignment 41

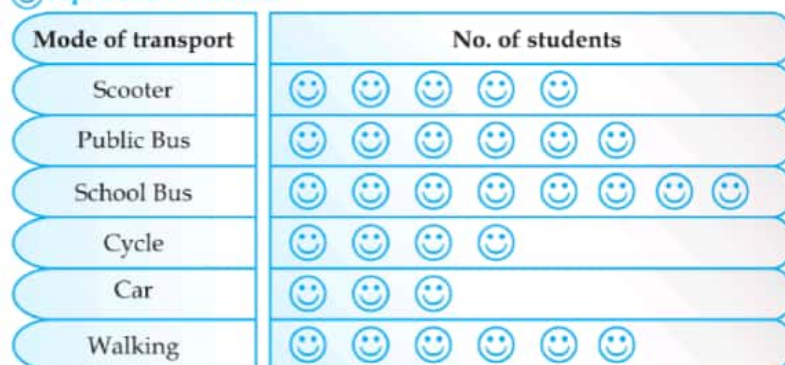
1. The following pictograph shows different subject books which are kept in a library.



Observe the pictograph and answer the following questions :

- How many English books are there in the library? _____
 - How many Maths books are there? _____
 - Which books are maximum in number? _____
 - Which books are minimum in number? _____
2. The following pictograph shows the different modes of transport used by students to travel to school each day.

 represents 5 students.



Look at the above pictograph and answer the following questions :


- How many students use school bus to travel to school? _____
- Which mode of transport is used by minimum number of students? _____
- Which is the most popular mode of transport? _____
- Which two modes of transport are used by equal number of students? _____





















Date :

Teacher's Signature :


Assignment 42









































Data Handling

1. The following pictograph shows the number of cows in five villages A, B, C, D and E. Here  stands for 10 cows.

Villages	No. of cows
A	      
B	   
C	  
D	   
E	 

Observe the pictograph and answer the following questions :

- Which village has 20 cows? _____
 - Which village has the maximum number of cows? _____
 - Which village has the minimum number of cows? _____
 - How many cows, in all, are there in five villages? _____
2. The sale of electric bulbs on different days of a week is shown below : Here  represents 2 bulbs.

Days	No. of bulbs
Monday	    
Tuesday	      
Wednesday	   
Thursday	    
Friday	      
Saturday	   
Sunday	       

Observe the pictograph and answer the following questions :

- How many bulbs were sold on Friday? _____
- On which day were the maximum number of bulbs sold? _____
- If one bulb was sold at the rate of Rs 8, what was the total sale on Sunday? _____
- Can you find out the total sale of the week? _____

Date :

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Data Handling

Assignment 43

1. Look at the bar graph given below :

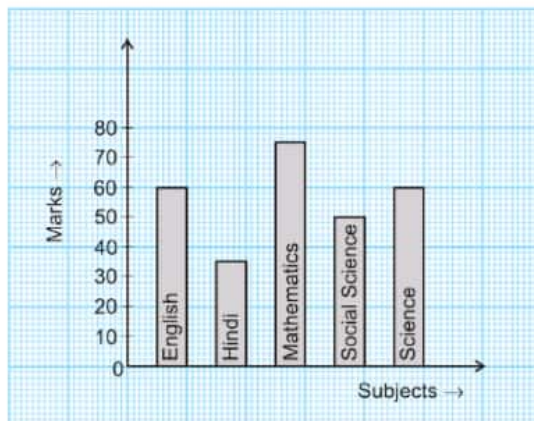
Read it carefully and answer the following questions :

- (i) What information does the bar graph give?

- (ii) In which subject the marks are highest?

- (iii) In which subject the marks are the least? _____

- (iv) In all, how many marks are scored by the student in the examination?



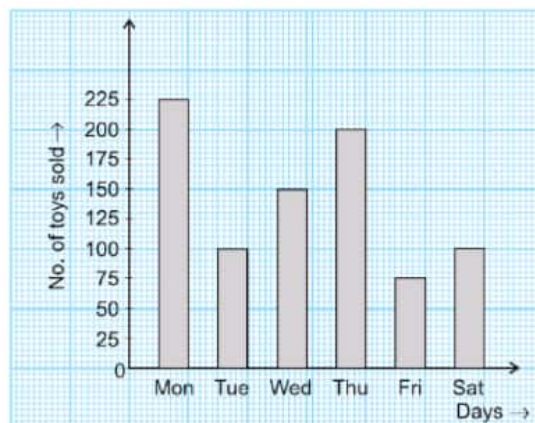
2. Given alongside is a graph showing the number of toys sold in a shop during a week. Read it carefully and answer the following questions :

- (i) On which day of the week was the sale minimum?

- (ii) On which day of the week was the sale maximum?

- (iii) What was the total sale during the week? _____

- (iv) On which two days equal number of toys were sold?



Date :

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MENSURATION

OUTLINE OF THE CHAPTER

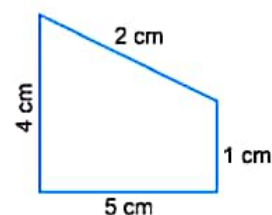
1. Perimeter is the distance along the line forming a closed figure when you go round the figure once. Or the sum of the lengths of all the sides of a closed figure is called its perimeter.
2.
 - (i) Perimeter of a rectangle = $2 \times (\text{length} + \text{breadth})$
 - (ii) Perimeter of a square = $4 \times \text{length of a side}$.
 - (iii) Perimeter of an equilateral triangle = $3 \times \text{length of a side}$.
 - (iv) Perimeter of a regular pentagon = $5 \times \text{length of a side}$.
 - (v) Perimeter of a regular hexagon = $6 \times \text{length of a side}$.
 - (vi) Perimeter of a regular octagon = $8 \times \text{length of a side}$.
3. The amount of surface enclosed by a plane figure is called its area. It is measured in square units of length.
4. To calculate the area of a figure using a squared paper, we proceed as follows.
 - (i) Count the complete squares.
 - (ii) Count the squares more than half as full squares.
 - (iii) Count a half square as half.
 - (iv) Neglect the square which is less than half.
5. Area of a rectangle = $\text{length} \times \text{breadth}$.
6. Area of a square = $\text{side} \times \text{side}$
7. To calculate the area of a combined figure, we divide the given figure into rectangles and squares and calculate the area of each figure. The sum of these areas will be equal to the area of the combined figure.

Mensuration

Assignment 44

Answer the following questions :

1. Find the area of a square plot of side 4 m. _____
2. Find the perimeter of a regular hexagon of side 7 cm. _____
3. Find the perimeter of the given figure. _____
4. The length and breadth of a rectangle are 15 cm and 6 cm respectively. Find its area. _____
5. Find the area
 - (i) of a rectangle whose length = 5 cm, breadth = 3 cm _____
 - (ii) of a square whose side is 12 cm. _____
6. Find the perimeter of each of the following :
 - (i) A square of side 8 cm. _____
 - (ii) A rectangle of sides 8 cm and 5 cm. _____
7. The area of a rectangle is 540 cm^2 . If its length is 36 cm, find its breadth. _____
8. How many square mm are there in one square cm? _____
9. How many square cm are there in one square m? _____
10. The distance along the line forming a closed figure when you go round the figure once is called its perimeter. Is it true? _____
11. Perimeter of an equilateral triangle = _____
12. Can we have two rectangles whose perimeters are same but areas are different? _____



Date :

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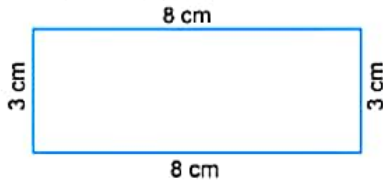
Assignment 45

Mensuration

Answer the following questions :

1. If the side of a square is 8 m, find its area. _____
 2. If the area of a square is 49 sq m, find its side. _____
 3. If the area of a rectangle is 110 sq cm and its length is 11 cm, find the breadth of the rectangle. _____
 4. The length and breadth of a rectangle are 11 m and 8 m respectively.
Find its area. _____
 5. Find the perimeter of a rectangle whose length is twice its breadth.

 6. A rectangle has a perimeter of 40 cm. If its length is 12 cm,
find its breadth. _____
 7. Find the perimeter of the given figure.

- 
8. The perimeter of a triangle is 19 cm. If its two sides are of lengths 8 cm and 7 cm, find its third side. _____
9. Can we have two rectangles whose areas are same but perimeters are different? _____
 10. Can we have two squares whose areas are same but perimeters are different? _____
 11. A piece of string is 42 cm long. What will be the length of each side of the string if the string is used to form a regular hexagon? _____
 12. The amount of surface enclosed by a figure is called its area. Is it true? _____
 13. Which figure has greater area : a square of perimeter 24 cm or a rectangle of dimensions 7 cm and 5 cm? _____
 14. What is the perimeter of a regular octagon? _____
 15. Find the perimeter of an isosceles triangle with equal sides 8 cm each and third side 10 cm. _____

Date :

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Mensuration

Assignment 46

Tick (✓) mark the correct answer in each case :

1. Perimeter of a rectangle is given by :
(i) length \times breadth (ii) length + breadth
(iii) $2 \times (\text{length} - \text{breadth})$ (iv) $2 \times (\text{length} + \text{breadth})$
2. Perimeter of a square is given by :
(i) side + side (ii) side \times side (iii) $2 \times$ side (iv) $4 \times$ side
3. Perimeter of an equilateral triangle is given by :
(i) $2 \times$ side (ii) $\frac{\text{side}}{2}$ (iii) $3 \times$ side (iv) none of these
4. Perimeter of a regular octagon is given by :
(i) $2 \times$ side (ii) $4 \times$ side (iii) $6 \times$ side (iv) $8 \times$ side
5. Area of a square is given by :
(i) side + side (ii) side \times side (iii) $4 \times$ side (iv) none of these
6. Area of a rectangle is given by :
(i) length \times breadth (ii) $2 \times (\text{length} + \text{breadth})$
(iii) $2 \times (\text{length} \times \text{breadth})$ (iv) none of these
7. The perimeter of a regular pentagon with each side measuring 6 cm is :
(i) 18 cm (ii) 24 cm (iii) 28 cm (iv) 30 cm
8. Area of a square whose perimeter is 4 cm is given by :
(i) 4 sq cm (ii) 3 sq cm (iii) 1 sq cm (iv) none of these
9. A table cloth measures 1 m by 60 cm. Its area is :
(i) 600 sq cm (ii) 6000 sq cm (iii) 60000 sq cm (iv) none of these
10. Length of a rectangle is :
(i) area \times breadth (ii) area + breadth
(iii) area - breadth (iv) area \div breadth

Date :

Teacher's Signature :



ALGEBRA

OUTLINE OF THE CHAPTER

1. Identifying patterns or rules between numbers forms an important part of understanding the basic ideas in algebra.
2. Letters used to represent numbers are called literals. These literals whose value vary from problem to problem are also called variables. A variable allows us to express relations in any practical situations.
3. Numerals like 1, 5, 21 etc, whose values remain same irrespective of the problem are called constants.
4. We can do the operations of addition, subtraction, multiplication and division on variables just as in the case of constants.
5. Using variables, we can express many common rules in both geometry and arithmetic in a general way. For example, the commutativity for addition of whole numbers can be expressed as $x + y = y + x$, where x and y stand for any whole numbers.
6. A statement of equality which involves literals (variables) is called an equation. An equation has two sides, LHS and RHS, between them is the equal (=) sign.
7. The value of the variable which satisfies the equation is called a solution to the equation. Solving an equation means finding the solution to the equation.

Algebra

Assignment 47

Answer the following questions :

1. Think of a number. Multiply it by 3 and add 4 to the result. What do you get?

2. Represent algebraically : Five times x added to four times y gives the result z .

3. Observe the following pattern of triangles made of matchsticks :



How many sticks are required to make :

- (a) 6 triangles? _____
 - (b) 10 triangles? _____
 - (c) 20 triangles? _____
 - (d) x triangles? _____
4. Rahul score 90 marks in English and x marks in Hindi. What is the total score in two subjects? _____
 5. Give expression for p divided by 7. _____
 6. Take Mohit's present age to be y years, what will be his age 5 years from now?

 7. Solve : $m + 3 = 4$. _____
 8. What number plus 9 is equal to 15? _____
 9. Give expression for 5 times y added to 3. _____
 10. Write L.H.S. and R.H.S. of the equation $3y + 5 = 11$ _____
 11. What number multiplied by 5 is equal to 60? _____
 12. Is $x = 3$ a root of the equation $3 + 2x = 9$? _____
 13. A teacher distributes 4 toffees per student. How many toffees are needed for x students? _____
 14. If the side of an equilateral triangle is l , express the perimeter of the equilateral triangle using l . _____
 15. Complete the table and find the solution to the equation $m - 5 = 7$.

m	7	8	9	10	11	12	13	14	15
$m - 5$									

Date :

Teacher's Signature :

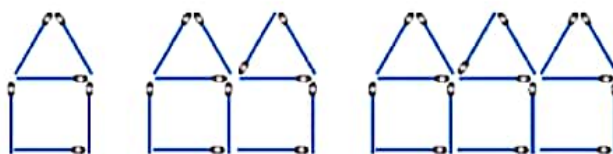
Assignment 48

Algebra

Answer the following questions :

1. Give expression for 'y is multiplied by 8 and then 5 is added to the result'.

2. Is $15 \div 3 \times 7$ an algebraic expression? _____
3. Think of a literal number. Multiply it by 7. Add 9 to it. Write this as an expression. _____
4. A train covers a distance of d km in t hours. Express its speed in algebraic terms. _____
5. Write L.H.S. and R.H.S. of the equation $2y = 9 - y$. _____
6. What number plus 8 is equal to 17? _____
7. A sum of Rs x is to be equally distributed among y students. Find the share of each student. _____
8. There are x rows of chairs and each row has y chairs. How many chairs are there? _____
9. Observe the following pattern of houses made of matchsticks.



How many sticks are required to make :

- (a) 4 houses? _____
 - (b) 6 houses? _____
 - (c) 20 houses? _____
 - (d) x houses? _____
10. A number n is always 10 less than a number p . Write down the rule which connects n and p . _____
 11. Solve : $x + 4 = 9$. _____
 12. 21 divided by what number is equal to 7? _____
 13. Is $a = 3$ a solution of $5a + 5 = 20$? _____
 14. 10 less than p is expressed as $10 - p$. Is it correct? _____
 15. Taking the variables x , y and z , express the associative property for addition of whole numbers. _____

Date :

Teacher's Signature :

Algebra

Assignment 49

Tick (✓) mark the correct answer in each case :

1. Product of 8 and x is written as :
(i) $8x$ (ii) $x8$ (iii) $8 + x$ (iv) $x - 8$
2. Which of the following shows the commutative property for addition of whole numbers?
(i) $x \times y = y \times x$ (ii) $x + (y + z) = (x + y) + z$
(iii) $x + y = y + x$ (iv) none of these
3. Which of the following is an algebraic expression?
(i) $15 \div 5 \times 4$ (ii) $\frac{1}{2}x$ $12 + 4$ (iii) $3 \times 14 \div 2 - 3$ (iv) none of these
4. The value of the variable in an equation which satisfy the equation is called the _____ of the equation.
(i) an expression (ii) a solution (iii) a property (iv) none of these
5. Ranjana is 6 years younger than Kusum. If Ranjana is x years old, then Kusum's age is :
(i) $6x$ years (ii) $\frac{6}{x}$ years (iii) $6 - x$ years (iv) $x + 6$ years
6. An equation has :
(i) one side (ii) two sides (iii) three sides (iv) none of these
7. '3 less than x equals 7' can be represented as :
(i) $x + 3 = 7$ (ii) $x - 3 = 7$ (iii) $x + 7 = 3$ (iv) $x - 7 = 3$
8. If $2x - 4 = 4$, then $5x$ is equal to :
(i) 28 (ii) 29 (iii) 39 (iv) 20
9. The equation having 5 as the root is :
(i) $4x + 1 = 2$ (ii) $x + 3 = 8$ (iii) $2x + 3 = 8$ (iv) none of these
10. ' x exceeds 4 by 7' can be expressed as :
(i) $x + 4 = 7$ (ii) $x + 7 = 4$ (iii) $x - 4 = 7$ (iv) $x - 7 = 4$

Date :

Teacher's Signature :

RATIO AND PROPORTION

OUTLINE OF THE CHAPTER

1. The ratio of two quantities of the same kind and in the same units is a fractions that one quantity is of the other. If the quantities to be compared are not in the same units, they should be expressed in the same units before the ratio is taken.
2. The order in which the quantities are taken to express their ratio is important. For example, 5 : 7 is different from 7 : 5.
3. A ratio is very similar to a fraction. Thus, the ratio 2 : 5 is treated as $\frac{2}{5}$.
4. In a ratio 8 : 7, 8 is called the first term or antecedent and 7 is called the second term or consequent.
5. A ratio of two numbers is generally expressed in its simplest form and it has no unit.
6. Two ratios are equivalent if the fractions corresponding to them are equivalent.
7. Four quantities are said to be in proportion, if the ratio of the first and second quantity is equal to the ratio of the third and fourth quantity.
8. The first and the fourth terms of a proportion are called extreme terms or extremes, and the second and the third terms are called middle terms or means.
9. In a proportion, product of extremes = product of means.
10. The order of terms in the proportion is important. For example, 2, 5, 6, 15 are in proportion but 2, 5, 15, 6 are not.
11. The method in which we first find the value of one unit and then the value of the required number of units is known as the unitary method.

Ratio and Proportion

Assignment 50

Answer the following questions :

1. Can we find the ratio of 22 cm to 11 kg? _____
2. Express 150 : 400 in its lowest form. _____
3. Find the ratio of 14 to 20. _____
4. In a class there are 14 girls and 16 boys.
 - (i) What is the ratio of the number of girls to the number of boys?

 - (ii) What is the ratio of the number of boys to the number of girls?

5. Are $a : b$ and $b : a$ same? _____
6. State true or false : $5 : 12 = 6 : 14$ _____
7. If 17 books cost Rs 51, what would 20 books cost? _____
8. Find x if $3 : x = x : 12$ _____
9. Fill in the boxes : $\frac{20}{24} = \frac{\boxed{}}{6} = \frac{10}{\boxed{}} = \frac{\boxed{}}{36}$
10. Are 2, 5, 6, 14 in proportion? _____
11. Out of 55 workers in a factory, 33 are men. Find the ratio of women to men workers in the factory. _____
12. Find the ratio of 20 seconds to 20 minutes. _____
13. State true or false : $12 : 18 :: 28 : 12$. _____
14. Are 1, 2, 3, 4 in proportion? _____
15. A car can travel 300 km in 5 hours at a uniform speed. What distance will it travel in 7 hours? _____
16. Are 2 : 3 and 6 : 9 equal? _____
17. Fill in the box : $\boxed{} : 2 = 5 : 10$
18. In a box containing 80 bulbs, 15 were found to be defective. Find the ratio of defective to good bulbs. _____

Date :

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Assignment 51

Ratio and Proportion

Answer the following questions :

1. Find the ratio of 40 paise to Rs 2. _____
2. The price of bread increased from Rs 12 to Rs 13.
Find the ratio of the increase in price to the original price. _____
3. Fill in the blanks : $\frac{14}{21} = \frac{\square}{3} = \frac{6}{\square}$.
4. A factory manufactures 300 items, out of which 36 are defective.
Find the ratio of the number of good items to the defective ones.

5. What is the unit of ratio? _____
6. Are 2, 4, 6, 12 in proportion? _____
7. If the cost of 12 books is Rs 204, then find the cost of 5 books. _____
8. Present age of father is 42 years and that of his son is 14 years. Find the ratio of present age of father to the present age of son. _____
9. Find x , if $5 : 35 :: x : 14$. _____
10. Find the ratio of 1 hour to 300 seconds. _____
11. State true or false : The ratio of one week to one month is 1 : 1. _____
12. 'A' earns 3 times as much as 'B'. If B earns Rs 1,500 then
 - (i) How much does A earn? _____
 - (ii) What is the ratio of the earnings of B to that of A? _____
13. Find x , if $\frac{16}{18} = \frac{x}{99}$ _____
14. A person saves Rs 6000 in one year. How much does he save in 4 months?

15. We can get equivalent ratios by multiplying or dividing both the terms by the same number. Is it true? _____
16. In a proportion, first and fourth terms are known as extremes. Second and third terms are known as means. Is it true? _____

Date :

Teacher's Signature :

Ratio and Proportion

Assignment 52

Answer the following questions :

1. Are the numbers 25, 10, 4 in proportion? _____
2. Are the numbers 3, 9, 9, 27 in proportion? _____
3. The cost of 15 envelopes is Rs 60. How many envelopes can be bought for Rs 28? _____
4. Find the ratio of 65 km to 91 km. _____
5. Find the cost of 1 shirt, if the cost of 12 shirts is Rs 2,700. _____
6. A man earns Rs 2,000 per month. His wife earns Rs 1,500 per month.
Find the ratio of
 - (i) His income to the combined income. _____
 - (ii) His income to his wife's income. _____
7. Find x , if $x : 6 = 55 : 11$ _____
8. Anju earned Rs 40,000 and paid Rs 5,000 as income tax.
Find the ratio of income tax paid to her income. _____
9. Can we find the ratio of 50 kg to 100 cm? _____
10. Write true or false, 5 : 10 is the lowest form of 25 : 50. _____
11. Are 1, 2, 2, 4 in proportion? _____
12. Determine x , if the quantities 7, 42, x , 48 are in proportion? _____
13. Length of a room is 30 m and its breadth is 20 m. Find the ratio of length of the room to the breadth of the room. _____
14. A swimming team consists of 12 boys and 9 girls. What is the ratio of
 - (i) boys to girls? _____
 - (ii) boys to total number of members in the team? _____
15. State true or false : 8 : 9 :: 24 : 27 _____
16. Find x , if 10 : 15 :: 12 : x . _____

Date :

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Assignment 53

Ratio and Proportion

Answer the following questions :

- Find x , if 4, 20, x are in proportion. _____
- The length and breadth of a rectangle are in the ratio 5 : 4.
If its length is 80 cm, find the breadth. _____
- There are 28 boys and 36 girls in a party. Find the ratio of
 - boys to girls. _____
 - boys to total number of children. _____
- Are 2 : 3 and 4 : 6 equal? _____
- The cost of 7 exercise books is Rs 84. What is the cost of 25 such books?

- Find the value of x , if $10 : x = 35 : 28$ _____
- State true or false : $20 : 30 = 15 : 25$. _____
- Can we find the ratio of 3 hours to 5 cm? _____
- Reduce to the simplest form. 35 days : 3 weeks. _____
- Fill in the boxes : $\frac{15}{27} = \frac{5}{\square} = \frac{\square}{45} = \frac{50}{\square}$ _____
- Are 10, 20, 30, 40 in proportion? _____
- If $8 : 3 = 24 : x$, find x . _____
- Find the ratio of 55 paise to Re 1. _____
- Express 75 paise : Rs 3 in its simplest form. _____
- Find the ratio of 3 hours to 75 minutes. _____
- The simplest form of equivalent ratios is same. Is it true? _____
- Write the extreme terms and the middle terms of the proportion
 $5 : 8 :: 30 : 48$. Extreme terms _____ Middle terms _____
- If 7 kg of tea costs Rs 140, find the cost of 10 kg. _____

Date :

Teacher's Signature :

Ratio and Proportion

Assignment 54

Tick (✓) mark the correct answer in each case :

1. The ratio of 9 pens to 15 pens is :
(i) 3 : 4 (ii) 5 : 3 (iii) 3 : 5 (iv) 5 : 4
2. The lowest form of the ratio 110 : 90 is :
(i) 9 : 11 (ii) 11 : 9 (iii) 110 : 90 (iv) 22 : 18
3. If $7 : x = 14 : 28$, then the value of x is :
(i) 28 (ii) 14 (iii) 7 (iv) 70
4. 7 : 5 is equivalent to :
(i) 42 : 30 (ii) 35 : 30 (iii) 65 : 110 (iv) 30 : 42
5. The ratio of 2 m to 60 cm is :
(i) 1 : 3 (ii) 3 : 1 (iii) 10 : 3 (iv) 3 : 10
6. Which of the following are in proportion?
(i) 1, 2, 3, 4 (ii) 2, 4, 6, 8 (iii) 2, 4, 8, 16 (iv) 4, 8, 10, 15
7. The lowest form of the ratio 39 : 65 is :
(i) 3 : 5 (ii) 1 : 3 (iii) 5 : 3 (iv) 13 : 5
8. In a class there are 20 boys and 15 girls. The ratio of boys to girls is :
(i) 4 : 3 (ii) 3 : 4
(iii) 4 : 5 (iv) none of these.
9. Ratio of 1 minute to 1 hour is :
(i) 60 : 1 (ii) 1 : 60
(iii) 1 : 30 (iv) none of these.
10. If the cost of 5 pens is Rs 15, then the cost of 3 pens is :
(i) Rs 10 (ii) Rs 9 (iii) Rs 8 (iv) Rs 12

Date :

Teacher's Signature :

Assignment 55

Ratio and Proportion

Tick (✓) mark the correct answer in each case :

1. There are x men and y women in an office. The ratio of the number of men to total number of staff in the office is :
(i) $x : (x + y)$ (ii) $y : (x + y)$
(iii) $y : x$ (iv) $(x + y) : y$
2. The value of x , if 4, x , 32 and 40 are in proportion is :
(i) 4 (ii) 3 (iii) 6 (iv) 5
3. The ratio of 1.5 m to 10 cm is :
(i) 1 : 5 (ii) 15 : 10 (iii) 10 : 15 (iv) 15 : 1
4. In the proportion $7 : 5 :: 28 : 20$, 5 and 28 are called :
(i) terms (ii) extreme terms
(iii) middle terms (iv) none of these.
5. Out of n students in a class, m are girls. The ratio of number of boys to the number of girls in the class is :
(i) $n : m$ (ii) $m : n$ (iii) $m : (m + n)$ (iv) $(n - m) : m$
6. Which of the following are in proportion?
(i) 5, 7, 10, 15 (ii) 10, 15, 2, 4 (iii) 50, 20, 5, 3 (iv) 45, 36, 5, 4
7. 3 : 2 is equivalent to :
(i) 4 : 6 (ii) 15 : 6 (iii) 12 : 8 (iv) none of these.
8. The ratio of 1 hour to 5 minutes is :
(i) 1 : 12 (ii) 12 : 1 (iii) 1 : 15 (iv) 5 : 1
9. If the cost of 6 books is Rs 96, then the cost of 8 books is :
(i) Rs 120 (ii) Rs 130 (iii) Rs 138 (iv) Rs 128
10. $7 : 14 = 25 : ?$
(i) 35 (ii) 40 (iii) 50 (iv) 100

Date :

Teacher's Signature :



SYMMETRY


OUTLINE OF THE CHAPTER

1. The line that splits a figure into two matching parts is called a line of symmetry or axis of symmetry of the figure.
2. Some shapes have one line of symmetry, some shapes have more than one line of symmetry. Some shapes have no line of symmetry.
3.
 - (i) An equilateral triangle has three lines of symmetry.
 - (ii) An isosceles triangle has one line of symmetry.
 - (iii) A scalene triangle has no line of symmetry.
4.
 - (i) A rectangle has two lines of symmetry.
 - (ii) A square has four lines of symmetry.
 - (iii) A regular pentagon has five lines of symmetry.
 - (iv) A regular hexagon has six lines of symmetry.
 - (v) A circle has infinite lines of symmetry.

Assignment 56

Symmetry

Answer the following questions :

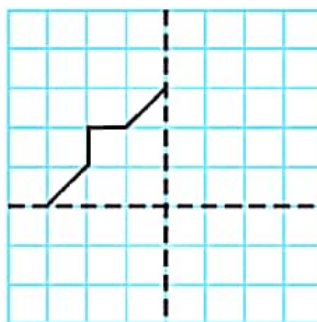
1. How many lines of symmetry does the figure have? _____ 
2. Write the letters of English alphabet which have no line of symmetry.

3. Draw a rough sketch of a triangle which has no line of symmetry.

4. How many lines of symmetry does a circle have? _____
5. Fill in the blanks : A square has _____ lines of symmetry.
6. How many lines of symmetry does an equilateral triangle have? _____
7. In the given figure, l is the line of symmetry. Complete the diagram to be symmetric.
8. Draw all the lines of symmetry of the following figure :



9. Which triangle has exactly one line of symmetry?
10. Complete the given figure such that the resulting figure has the dotted lines as two lines of symmetry :



Date :

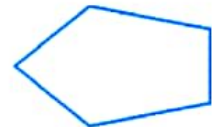
Teacher's Signature :

Symmetry

Assignment 57

Answer the following questions :

1. How many lines of symmetry does the figure have?
Draw all of them _____.



2. Name the triangle which has exactly two lines of symmetry

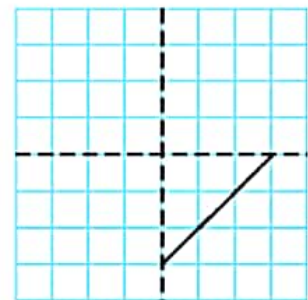
3. Write a letter of English alphabet which has no line of symmetry. _____

4. Fill in the blanks :

(a) A rectangle has _____ lines of symmetry.

(b) The letter X has _____ lines of symmetry.

5. Complete the given figure such that the resulting figure has the dotted lines as two lines of symmetry.



6. Draw a figure which have more than two lines of symmetry.

7. How many lines of symmetry does letter D have? _____

8. How many lines of symmetry does a scalene triangle have? _____

9. Draw all lines of symmetry of the given figure.



10. How many lines of symmetry does a regular pentagon have? _____

11. How many letters of English alphabet have exactly one line of symmetry?

12. A parallelogram has no line of symmetry. Is it true? _____

Date :

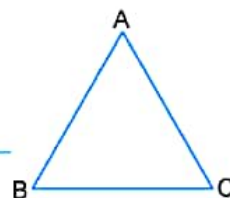
Teacher's Signature :

Revision Assignment 1

Answer the following questions :

1. What is the predecessor of 1,000? _____
2. Find the sum : $148 + 552 + 60$ _____
3. How many thousands make 9 lakh? _____
4. Which is greater : XCIV or 104? _____
5. Write down the smallest odd composite number. _____
6. Is 4,015 divisible by 11? _____
7. Find the value of $-7 + 7 - 17$. _____
8. The sum of two integers is -16 . If one of them being -23 , find the other.

9. Name the longest chord of a circle. _____
10. What is the measure of an obtuse angle? _____
11. Solve : $x + 5 = 15$ _____
12. Find the ratio of 25 paise to Rs 2 _____
13. For what value of x will the equation $x - 5 = 7$ be true? _____
14. Add : 0.55 and 0.5 _____
15. \overline{AB} and \overline{BA} denote the same line segment while \overrightarrow{PQ} and \overrightarrow{QP} denote different rays. Is it true? _____
16. How many degrees are there in one-sixth of a right angle? _____
17. Express $\frac{18}{5}$ as a mixed number. _____
18. Without measuring the angles, answer whether $\triangle ABC$ is acute angled, obtuse angled or right angled. _____
19. The diameter of a circle is 8 cm. What is its radius? _____
20. Express 15.225 kg as kg and g. _____



Date :

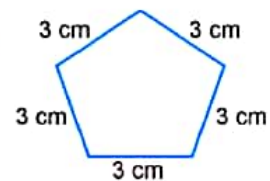
Teacher's Signature :

Revision Assignment 2

Answer the following questions :

1. What is the place value of 8 in 6,812? _____
2. Simplify using distributive property :
 $125 \times 215 - 125 \times 15$. _____
3. Write the integer which is -4 more than -5 . _____
4. Is 48 a prime number? _____
5. Write the integer which is its own additive inverse. _____
6. How many whole numbers are there which are not natural numbers?

7. Give the prime factorisation of 56. _____
8. Convert $1\frac{3}{4}$ into an improper fraction. _____
9. Find the ratio of 2 litres to 750 millilitres. _____
10. Write $\frac{1}{5}$ as a decimal. _____
11. Where will the hour hand of a clock stop if it starts from 6 and turns through 2 right angles? _____
12. Solve : $x - 6 = 30$ _____
13. If 100 pens cost Rs 700, what is the cost of 15 such pens? _____
14. Find the perimeter of the given figure. _____
15. Identify the types of triangle whose sides are
3 cm, 5 cm and 7 cm. _____



Date :

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Revision Assignment 3

Answer the following questions :

1. Find the difference between the place value and the face value of 7 in 25,74,318. _____
2. Subtract : Ten thousand nine from ten lakh. _____
3. Mohit is 22 years old. What was his age x years ago? _____
4. "5 times a number subtracted from 23 gives 3."
Express the above statement in the form of an equation. _____
5. If $9 : 12 = x : 36$, then find x . _____
6. Between which two whole numbers on the number line do the number 4.37 lie? _____
7. Write $40 + \frac{5}{10} + \frac{3}{100} + \frac{4}{1000}$ as a decimal. _____
8. Simplify : $2 - \left(\frac{1}{5} + \frac{1}{5}\right)$ _____
9. Write algebraically : 5 less than the quotient of x by 3. _____
10. Find the ratio of 2 cm to 1 metre. _____
11. Is every chord of a circle also a diameter? _____
12. How many degrees are there in one and half right angles?

13. Draw all the lines of symmetry of the given figure.
14. Write the additive inverse of -25 . _____
15. Are 4, 8, 16, 32 in proportion? _____



Date :

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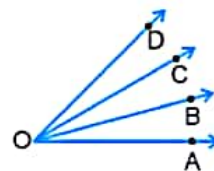
Revision Assignment 4

Answer the following questions :

1. Find the area of the rectangle whose length is 8 cm and breadth is 5 cm.

2. At a certain place, the minimum temperature was -2°C . It rose to 8°C during the day time. Find the total rise. _____
3. How many millimetres are there in 8 km? _____
4. Write the Roman numeral for 76. _____
5. Write the prime factors of 135. _____
6. A number divisible by 3 is also divisible by 9. Is it true? _____
7. Find : $-26 + 37$. _____
8. Express $3\frac{7}{10}$ as an improper fraction. _____
9. Solve : $x + 2 = 7$ _____
10. How many angles are shown in the figure? Name them.

11. How many lines of symmetry does an equilateral triangle have? _____
12. Find the side of the square whose area is 169 square cm. _____
13. Find the ratio of 50 g to 1.5 kg. _____
14. Express 4.26 m as m and cm. _____
15. Are 8 : 18 and 4 : 19 equivalent? _____



Date :

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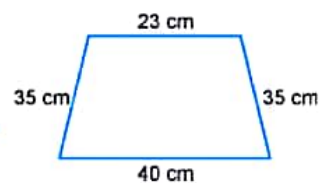
Revision Assignment 5

Answer the following questions :

1. Write the greatest 5-digit number using three different digits. _____
2. Round off 2936 to the nearest tens _____
3. Write the successor of 1,00,199. _____
4. Find $25 \times 185 \times 4$. _____
5. Is 51 a prime number? _____
6. Find the HCF of 28 and 12. _____
7. Which is warmer -3°C or -2°C and by how much? _____
8. Reduce $49 : 63$ to its lowest terms. _____
9. Which direction will you face if you start facing south and make one full revolution? _____
10. A person saves Rs 3,000 in one year. How much will he save in 4 months?

11. Find the perimeter of the given figure. _____
12. How many degrees are there in three right angles?

13. Name the quadrilateral which has just one pair of parallel sides. _____
14. Write all the letters of English alphabet which have more than two lines of symmetry. _____
15. Each radius of a circle is also a chord of the circle. Is it true? _____



Date :

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Revision Assignment 6

Answer the following questions :

1. Find the ratio of 20 minutes to 1 hour in the lowest form. _____
2. Find : $(-3) - (-2)$. _____
3. Are $\frac{1}{5}$ and $\frac{16}{80}$ equivalent? _____
4. Fill in the blank with the smallest digit, to make 146 ____ 8 divisible by 3.
5. The angles of a triangle are 91° , 50° and 39° . What kind of triangle is it?

6. Is $b = 1$ a solution of the equation $5 + b = 6$? _____
7. Thrice a number is 60. Find the number. _____
8. The cost of 8 exercise books is Rs 136. What is the cost of 17 such exercise books? _____
9. How many edges does a tetrahedron have? _____
10. What is the H.C.F. of any two consecutive whole numbers? _____
11. How many diagonals does a pentagon have?
12. A man is facing East. In which direction will he look if he turns to the left through :
(a) One right angle? _____ (b) Two right angles? _____
(c) Three right angles? _____ (d) Four right angles? _____
13. Write $200 + 50 + 4 + \frac{2}{10} + \frac{8}{100}$ as a decimal. _____
14. The radius of a circle is 8 cm. What will be its diameter? _____
15. The area of a rectangle is 135 sq cm and its length is 15 cm. Find the breadth of the rectangle. _____

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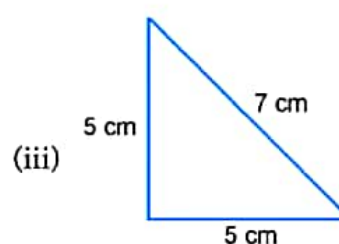
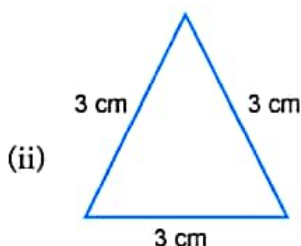
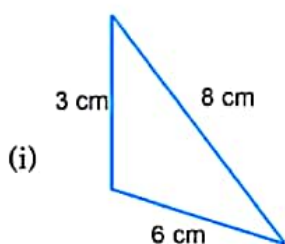
Revision Assignment 7

Answer the following questions :

1. Write the predecessor of 18,999. _____
2. Write the simplest form of $\frac{60}{150}$. _____
3. Write $50 + 2 + \frac{1}{10} + \frac{6}{100}$ as a decimal. _____
4. Write the integer which is 4 less than -2. _____
5. Determine the difference of the place values of 4s in 7,34,004.

6. Is 79 a prime number? _____
7. Every multiple of a number is greater than or equal to that number. Is it true?

8. Express $8\frac{5}{7}$ as an improper fraction. _____
9. Find the value of x , if 3, 18, x , 42 are in proportion. _____
10. Can a circle have two centres? _____
11. How many faces does a square pyramid have? _____
12. Can we find the greatest negative integer? _____
13. Classify the following triangles according to their sides :



14. Find the area of a square whose perimeter is 20 cm. _____
15. How many lines of symmetry does a parallelogram have? _____

Date :

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Revision Assignment 8

Answer the following questions :

1. Which is the smallest number that has 2, 3 and 5 as its factors? _____
2. Write the successor of 2,999. _____
3. What should be added to 5 to make it equal to -2? _____
4. Can two lines intersect in more than one point? _____
5. The product of two whole numbers is zero. If one of the numbers is 17, what is the other? _____
6. How many letters of English alphabet have more than two lines of symmetry?

7. Find the ratio of 8 min to 120 sec. _____
8. Find the equivalent fraction of $\frac{5}{8}$ with numerator 40. _____
9. How many lines can pass through :
(i) One given point? _____ (b) Two given points? _____
10. Write the smallest 5-digit number using three different digits. _____

Tick (✓) mark the correct answer in each case :

11. 5.6 lies between the whole numbers :
(i) 4 and 5 (ii) 5 and 6 (iii) 7 and 8 (iv) 9 and 10
12. An angle which is greater than a zero angle but less than a right angle is called:
(i) an obtuse angle (ii) a complete angle
(iii) an acute angle (iv) none of these
13. If the numerator and the denominator of a fraction are equal, then the fraction:
(i) is less than 1 (ii) is equal to 1
(iii) is greater than 1 (iv) none of these.
14. Perimeter of a rectangle is :
(i) $2 \times \text{length} \times \text{breadth}$ (ii) $2 \times (\text{length} + \text{breadth})$
(iii) $2 \times \text{length}$ (iv) $4 \times \text{length}$

Date :

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Revision Assignment 9

Answer the following questions :

1. Is 56,421 divisible by 3? _____
2. Which is the largest prime number less than 99? _____
3. Simplify : $-9 - 9 - (-41)$. _____
4. Find the sum of the place values of 9 and 4 in 6,95,428. _____
5. Reduce $\frac{42}{28}$ to its simplest form. _____
6. Express $\frac{3}{4}$ as a decimal. _____
7. Write the predecessor of 50,000 _____
8. $\angle AOB$ and $\angle BOA$ denote the same angle. Is it true? _____
9. Find the equivalent fraction of $\frac{2}{5}$ with denominator 15. _____
10. Where will the hour hand of a clock stop if it starts from 3 and turns through 2 right angles?. _____

Tick (✓) mark the correct answer in each case :

11. The sides of a triangle are 7 cm, 8 cm and 9 cm. The triangle is :
(i) scalene (ii) equilateral (iii) acute angled (iv) isosceles
12. A quadrilateral whose all the sides, diagonals and angles are equal is a :
(i) square (ii) rhombus (iii) rectangle (iv) trapezium
13. The ratio of 1.5 m to 10 cm is :
(i) 1 : 15 (ii) 15 : 10 (iii) 10 : 15 (iv) 15 : 1
14. A prime number has :
(i) only one factor (ii) four factors
(iii) exactly two factors (iv) none of these
15. 0.75 when expressed as a fraction is :
(i) $\frac{3}{4}$ (ii) $\frac{1}{4}$ (iii) $\frac{5}{4}$ (iv) $\frac{3}{20}$

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Revision Assignment 10

Answer the following questions :

1. Write the smallest 4-digit number having three different digits. _____
2. What is the predecessor of 60100? _____
3. Find the value of $146 \times 14 - 4 \times 146$. _____
4. Fill in the box : $\frac{3}{8} = \frac{9}{\square}$ _____
5. Which is greater, 2.08 or 2.80? _____
6. What is the measure of each angle of an equilateral triangle? _____
7. Find the H.C.F. of 16 and 21. _____
8. Can a triangle have two right angles? _____
9. Find the perimeter of the rectangle whose length is 5 m and breadth is 3 m.

10. Write algebraically : z is greater than y by 10 _____

Tick (✓) mark the correct answer in each case :

11. In a circle :

- | | |
|--|---|
| (i) radius = $\frac{1}{2} \times$ diameter | (ii) radius = $\frac{1}{4} \times$ diameter |
| (iii) diameter = $\frac{1}{2} \times$ radius | (iv) radius = $4 \times$ diameter |

12. The "line segment AB" is denoted as :

- | | | | |
|---------------------|----------------------------|---------------------------------|---------------------------|
| (i) \overline{AB} | (ii) \overrightarrow{AB} | (iii) \overleftrightarrow{AB} | (iv) \overleftarrow{BA} |
|---------------------|----------------------------|---------------------------------|---------------------------|

13. If a and b are whole numbers, which of the following may not be a whole number?

- | | | | |
|-------------|--------------|--------------------|---------------------|
| (i) $a + b$ | (ii) $a - b$ | (iii) $a \times b$ | (iv) none of these. |
|-------------|--------------|--------------------|---------------------|

14. What should be added to -10 to get -2 ?

- | | | | |
|-------|--------|---------|-----------|
| (i) 6 | (ii) 7 | (iii) 8 | (iv) -8 |
|-------|--------|---------|-----------|

15. A square pyramid has :

- | | | | |
|-------------|--------------|---------------|--------------|
| (i) 4 faces | (ii) 5 faces | (iii) 6 faces | (iv) 8 faces |
|-------------|--------------|---------------|--------------|

Date :

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