Hindi

जीवन परिचय

1 सूरदास

2 तुलसीदास

3 जयशंकर प्रसाद

4 स्वयं प्रकाश

5 यशपाल

6 अवधी भाषा आज किन-किन क्षेत्र में बोली जाती है सूची बनाइए।

7 नेताजी सुभाष चंद्र बोस के व्यक्तित्व और कृतित्व पर जानकारी प्राप्त करके लिखिए ।

8 अपने घर के आस-पास देखिए और पता लगाइए कि नगर पालिका ने क्या-क्या काम करवाए हैं हमारी भूमिका उसमें क्या हो सकती है लिखिए।

'9 ग्रीष्म ऋतु' पर अनुच्छेद लिखिए।

10 अपने किसी परिचित या मित्र के स्वभाव की विशेषताएं लिखिए।

Note- All work done in project file, Learn all chapter

Social science

1. Learn all notebook work

2. Complete your lab manual (geography chapter 1 and civics chapter 1& 2)

3. Complete your project file choose any one topic with the given option. (Social issue, resources, soil)

HISTORY

MAKE A FLOW CHART ON LESSON- 1 ACCORDINGLY BUT BEFORE THAT READ CHAPTER MARK MAJOR ENENT ON THE FLOW CHART.

LESSON- 1,2 LEARN MAKE A ASSIGNMENT QUESTION 1 HOW TO COMPARE DIFFERENT COUNTRIES & STATES DEVELOPMENT ON THE BASES OF INCOME IN A STATICAL MANNER.

English

 Make a clip folder for English

1. Make a poster on A4 size sheet on the topic 'Education is important for life'.

2. Make a travel Brocher on describing the location, ways to reach there, weather forecast, best time to visit hotels, the fauna and flora, food, suggested activities, culture etc.

3. Summarize any 5 chapters/poem of English in your own words.

Science

1) Learn all the chapters done so far.
2) Complete your lab manual in a proper way.
3) Make a model of digestive system, respiratory system , transportation system , excretory system
4) Make a scrap book of the chapter chemical reactions and equations **(use creativity while doing model and scrapbook**)

PAT

Create a sample assessment on :
a) Identify the qualities of a good physical activity facilitator.
b) list at least five points that indicates that a physical activity facilitator nurtures each student.
c)make a bulletin on the notice board on the importance of physical activities and healthy eating habits
d)what are the advantages of using report card

e)Define sports, game and play

Lesson Plan

a) conduct a physical activity to make children practice catching a ball

b)on some examples of the activities they are suitable for the age group of (3 to 8) years.

MATHEMATICS

Project work

1. Prepare a Project File on the history of Pie (π) and correlate Pie (π) in real life situations.
2. Chronology of Indian Mathematicians with their contributions.
3. Golden Rectangle and Golden Ratio

Lab Manual

➢ Do Lab Activity Number 1 to 5 in the lab Manual Activity book.

Worksheets

➢ Do the given worksheets in the separate assignment file.

CLASS X : CHAPTER - 1
REAL NUMBERS

1. A .... is a proven statement used for proving another statement.
   (a) axiom   (b) theorem   (c) lemma   (d) algorithm

2. The product of non-zero rational ad an irrational number is
   (a) always rational   (b) always irrational   (c) rational or irrational   (d) one

3. The HCF of smallest composite number and the smallest prime number is
   (a) 0   (b) 1   (c) 2   (d) 3

4. Given that HCF(1152, 1664) = 128 the LCM(1152, 1664) is
   (a) 14976   (b) 1664   (c) 1152   (d) none of these

5. The HCF of two numbers is 23 and their LCM is 1449. If one of the numbers is 161, then the other number is
   (a) 23   (b) 207   (c) 1449   (d) none of these

6. Which one of the following rational number is a non-terminating decimal expansion:
   (a) $\dfrac{33}{50}$ (b) $\dfrac{66}{180}$ (c) $\dfrac{6}{15}$ (d) $\dfrac{41}{1000}$

7. A number when divided by 61 gives 27 quotient and 32 as remainder is
   (a) 1679   (b) 1664   (c) 1449   (d) none of these

8. The product of L.C.M and H.C.F. of two numbers is equal to
   (a) Sum of numbers   (b) Difference of numbers
   (c) Product of numbers   (d) Quotients of numbers

9. L.C.M. of two co-prime numbers is always
   (a) product of numbers   (b) sum of numbers
   (c) difference of numbers   (d)none

10. What is the H.C.F. of two consecutive even numbers
    (a) 1   (b)2   (c) 4   (d) 8

11. What is the H.C.F. of two consecutive odd numbers
    (a) 1   (b) 2   (c) 4   (d) 8

12. The missing number in the following factor tree is
    (a) 2   (b) 6   (c) 3   (d) 9
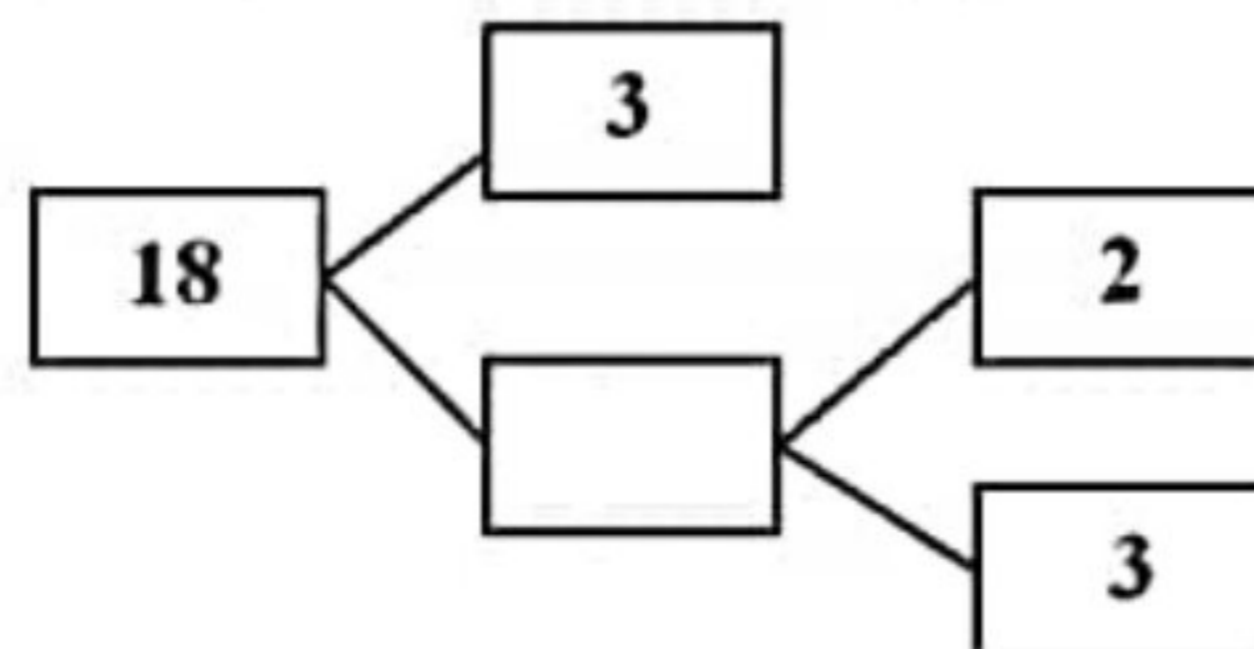
CLASS X : CHAPTER - 1
REAL NUMBERS

1. For some integer m, every even integer is of the form
   (a) m (b) $m + 1$ (c) $2m$ (d) $2m + 1$

2. For some integer q, every odd integer is of the form
   (a) q (b) $q + 1$ (c) $2q$ (d) $2q + 1$

3. $n^2 - 1$ is divisible by 8, if n is
   (a) an integer   (b) a natural number
   (c) an odd integer   (d) an even integer

4. If the HCF of 65 and 117 is expressible in the form $65m - 117$, then the value of m is
   (a) 4   (b) 2   (c) 1   (d) 3

5. The largest number which divides 70 and 125, leaving remainders 5 and 8, respectively, is
   (a) 13   (b) 65   (c) 875   (d) 1750

6. If two positive integers a and b are written as $a = x^3y^2$ and $b = xy^3$; x, y are prime numbers, then HCF (a, b) is
   (a) xy (b) xy^2 (c) x^3y^3 (d) x^2y^2

7. If two positive integers p and q can be expressed as $p = ab^2$ and $q = a^3b$; a, b being prime numbers, then LCM (p, q) is
   (a) ab (b) a^2b^2 (c) a^3b^2 (d) a^3b^3

8. The product of a non-zero rational and an irrational number is
   (a) always irrational   (b) always rational
   (c) rational or irrational   (d) one

9. The least number that is divisible by all the numbers from 1 to 10 (both inclusive) is
   (a) 10   (b) 100   (c) 504   (d) 2520

10. The decimal expansion of the rational number $\dfrac{14587}{1250}$ will terminate after:
    (a) one decimal place   (b) two decimal places
    (c) three decimal places   (d) four decimal places

11. The decimal expansion of the rational number $\dfrac{33}{2^2.5}$ will terminate after
    (a) one decimal place   (b) two decimal places
    (c) three decimal places   (d) more than 3 decimal places

PRACTICE QUESTIONS
CLASS X : CHAPTER - 2
POLYNOMIALS

1. If $p(x) = 3x^3 - 2x^2 + 6x - 5$, find $p(2)$.

2. Draw the graph of the polynomial $f(x) = x^2 - 2x - 8$.

3. Draw the graph of the polynomial $f(x) = 3 - 2x - x^2$.

4. Draw the graph of the polynomial $f(x) = -3x^2 + 2x - 1$.

5. Draw the graph of the polynomial $f(x) = x^2 - 6x + 9$.

6. Draw the graph of the polynomial $f(x) = x^3$.

7. Draw the graph of the polynomial $f(x) = x^3 - 4x$.

8. Draw the graph of the polynomial $f(x) = x^3 - 2x^2$.

9. Draw the graph of the polynomial $f(x) = -4x^2 + 4x - 1$.

10. Draw the graph of the polynomial $f(x) = 2x^2 - 4x + 5$.

11. Find the quadratic polynomial whose zeroes are $2 + \sqrt{3}$ and $2 - \sqrt{3}$.

12. Find the quadratic polynomial whose zeroes are $\dfrac{3 - \sqrt{3}}{5}$ and $\dfrac{3 + \sqrt{3}}{5}$.

13. Find a quadratic polynomial whose sum and product of zeroes are $\sqrt{2}$ and 3 respectively.

14. Find the zeroes of the polynomial $mx^2 + (m + n)x + n$.

15. If m and n are zeroes of the polynomial $3x^2 + 11x - 4$, find the value of $\dfrac{m}{n} + \dfrac{n}{m}$

16. If a and b are zeroes of the polynomial $x^2 - x - 6$, then find a quadratic polynomial whose zeroes are $(3a + 2b)$ and $(2a + 3b)$.

17. If p and q are zeroes of the polynomial $t^2 - 4t + 3$, show that $\dfrac{1}{p} + \dfrac{1}{q} - 2pq + \dfrac{14}{3} = 0$.

18. If $(x - 6)$ is a factor of $x^3 + ax^2 + bx - b = 0$ and $a - b = 7$, find the values of a and b.

19. If 2 and -3 are the zeroes of the polynomial $x^2 + (a + 1)x + b$, then find the value of a and b.

20. Obtain all zeroes of polynomial $f(x) = 2x^4 + x^3 - 14x^2 - 19x - 6$ if two of its zeroes are -2 and -1.

21. Find all the zeroes of the polynomial $2x^3 - 4x - x^2 + 2$, if two of its zeroes are $\sqrt{2}$ and $-\sqrt{2}$.

22. Find all the zeroes of the polynomial $x^4 - 3x^3 + 6x - 4$, if two of its zeroes are $\sqrt{2}$ and $-\sqrt{2}$.

23. Find all the zeroes of the polynomial $2x^4 - 9x^3 + 5x^2 + 3x - 1$, if two of its zeroes are $2 + \sqrt{3}$ and $2 - \sqrt{3}$.

PRACTICE QUESTIONS
CLASS X : CHAPTER - 3
PAIR OF LINEAR EQUATIONS IN TWO VARIABLES
SOLVING EQUATIONS

Solve for x and y:

1. $11x + 15y + 23 = 0; 7x - 2y - 20 = 0.$

2. $2x + y = 7; 4x - 3y + 1 = 0.$

3. $23x - 29y = 98; 29x - 23y = 110.$

4. $2x + 5y = \dfrac{8}{3}; 3x - 2y = \dfrac{5}{6}.$

5. $4x - 3y = 8; 6x - y = \dfrac{29}{3}.$

6. $2x - \dfrac{3}{4}y = 3; 5x = 2y + 7.$

7. $2x - 3y = 13; 7x - 2y = 20.$

8. $3x - 5y - 19 = 0; -7x + 3y + 1 = 0.$

9. $2x - 3y + 8 = 0; x - 4y + 7 = 0.$

10. $x + y = 5xy; 3x + 2y = 13xy; x \neq 0, y \neq 0.$

11. $152x - 378y = -74; -378x + 152y = -604.$

12. $47x + 31y = 63; 31x + 47y = 15.$

13. $71x + 37y = 253; 37x + 71y = 287.$

14. $37x + 43y = 123; 43x + 37y = 117.$

15. $217x + 131y = 913; 131x + 217y = 827.$

16. $41x - 17y = 99; 17x - 41y = 75.$

PRACTICE QUESTIONS
CLASS X : CHAPTER – 3
PAIR OF LINEAR EQUATIONS IN TWO VARIABLES
WORD PROBLEMS

I. NUMBER BASED QUESTIONS

SIMPLE PROBLEMS

1. The sum of two numbers is 137 and their difference is 43. Find the numbers.

2. The sum of thrice the first and the second is 142 and four times the first exceeds the second by 138, then find the numbers.

3. Sum of two numbers is 50 and their difference is 10, then find the numbers.

4. The sum of twice the first and thrice the second is 92 and four times the first exceeds seven times the second by 2, then find the numbers.

5. The sum of two numbers is 1000 and the difference between their squares is 25600, then find the numbers.

6. The difference between two numbers is 14 and the difference between their squares is 448, then find the numbers.

7. The sum of two natural numbers is 8 and the sum of their reciprocals is $\dfrac{8}{15}$. Find the numbers.

TWO-DIGIT PROBLEMS

1. The sum of the digits of a two digit number is 12. The number obtained by interchanging the two digits exceeds the given number by 18. Find the number.

2. Seven times a two-digit number is equal to four times the number obtained by reversing the order of its digit. If the difference between the digits is 3, then find the number.

3. The sum of the digits of a two digit number is 9. Also, nine times this number is twice the number obtained by reversing the order of the digits. Find the number.

4. The sum of the digits of a two digit number is 9. If 27 is added to it, the digits of the numbers get reversed. Find the number.

5. The sum of a two-digit number and the number obtained by reversing the digits is 66. If the digits of the number differ by 2, find the number. How many such numbers are there?

6. A two-digit number is 4 more than 6 times the sum of its digit. If 18 is subtracted from the number, the digits are reversed. Find the number.

7. The sum of a two-digit number and the number obtained by reversing the digits is 99. If the digits differ by 3, find the number.

8. The sum of a two-digit number and the number formed by interchanging its digit is 110. If 10 is subtracted from the original number, the new number is 4 more than 5 times the sum of the digits of the original number. Find the original number.

9. A two-digit number is 3 more than 4 times the sum of its digit. If 18 is added to the number, the digits are reversed. Find the number.

10. The sum of the digits of a two digit number is 15. The number obtained by interchanging the two digits exceeds the given number by 9. Find the number.

FRACTION PROBLEMS

1. A fraction becomes $\frac{9}{11}$, if 2 is added to both the numerator and the denominator. If 3 is added to both the numerator and the denominator it becomes $\frac{5}{6}$. Find the fraction.

2. The sum of numerator and denominator of a fraction is 12. If the denominator is increased by 3 then the fraction becomes $\frac{1}{2}$. Find the fraction.

3. If 1 is added to both the numerator and denominator of a given fraction, it becomes $\frac{4}{5}$. If however, 5 is subtracted from both the numerator and denominator, the fraction becomes $\frac{1}{2}$. Find the fraction.

4. In a given fraction, if the numerator is multiplied by 2 and the denominator is reduced by 5, we get $\frac{6}{5}$. But if the numerator of the given fraction is increased by 8 and the denominator is doubled, we get $\frac{2}{5}$. Find the fraction.

5. The denominator of a fraction is greater than its numerator by 11. If 8 is added to both its numerator and denominator, it reduces to $\frac{1}{3}$. Find the fraction.

II.   AGE RELATED QUESTIONS

1. Ten years hence, a man's age will be twice the age of his son. Ten years ago, man was four times as old as his son. Find their present ages.

2. A man's age is three times the sum of the ages of his two sons. After 5 years his age will be twice the sum of the ages of his two sons. Find the age of the man.

3. If twice the son's age in years is added to the mother's age, the sum is 70 years. But if twice the mother's age is added to the son's age, the sum is 95 years. Find the age of the mother and her son.

4. Five years ago Nuri was thrice old as Sonu. Ten years later, Nuri will be twice as old as Sonu. Find the present age of Nuri and Sonu.

PRACTICE QUESTIONS
CLASS X : CHAPTER - 4
QUADRATIC EQUATIONS
NATURE OF ROOTS

1. Find the value of k for which the quadratic equation $2x^2 + kx + 3 = 0$ has two real equal roots.

2. Find the value of k for which the quadratic equation $kx(x - 3) + 9 = 0$ has two real equal roots.

3. Find the value of k for which the quadratic equation $4x^2 - 3kx + 1 = 0$ has two real equal roots..

4. If -4 is a root of the equation $x^2 + px - 4 = 0$ and the equation $x^2 + px + q = 0$ has equal roots, find the value of p and q.

5. If -5 is a root of the equation $2x^2 + px - 15 = 0$ and the equation $p(x^2 + x) + k = 0$ has equal roots, find the value of k.

6. Find the value of k for which the quadratic equation $(k - 12)x^2 + 2(k - 12)x + 2 = 0$ has two real equal roots..

7. Find the value of k for which the quadratic equation $k^2x^2 - 2(k - 1)x + 4 = 0$ has two real equal roots..

8. If the roots of the equation $(a - b)x^2 + (b - c)x + (c - a) = 0$ are equal, prove that $b + c = 2a$.

9. Prove that both the roots of the equation $(x - a)(x - b) + (x - b)(x - c) + (x - c)(x - a) = 0$ are real but they are equal only when $a = b = c$.

10. Find the positive value of k for which the equation $x^2 + kx + 64 = 0$ and $x^2 - 8x + k = 0$ will have real roots.

11. Find the value of k for which the quadratic equation $kx^2 - 6x - 2 = 0$ has two real roots.

12. Find the value of k for which the quadratic equation $3x^2 + 2x + k = 0$ has two real roots.

13. Find the value of k for which the quadratic equation $2x^2 + kx + 2 = 0$ has two real roots.

14. Show that the equation $3x^2 + 7x + 8 = 0$ is not true for any real value of x.

15. Show that the equation $2(a^2 + b^2)x^2 + 2(a + b)x + 1 = 0$ has no real roots, when $a \neq b$.

16. Find the value of k for which the quadratic equation $kx^2 + 2x + 1 = 0$ has two real and distinct roots.

17. Find the value of p for which the quadratic equation $2x^2 + px + 8 = 0$ has two real and distinct roots.

18. If the equation $(1 + m^2)x^2 + 2mcx + (c^2 - a^2) = 0$ has equal roots, prove that $c^2 = a^2(1 + m^2)$.

VII. NUMBER BASED QUESTIONS

DIRECT QUESTIONS

1. The difference of two numbers is 5 and the difference of their reciprocals is $\frac{1}{10}$. Find the numbers.

2. Find two consecutive odd positive integers, sum of whose squares is 290.

3. The difference of the squares of two numbers is 45. The squares of the smaller number are 4 times the larger number. Find the numbers.

4. The sum of the squares of the two positive integers is 208. If the square of the larger number is 18 times the smaller number, find the numbers.

5. The denominator of a fraction is 3 more than its numerator. The sum of the fraction and its reciprocal is $2\frac{9}{10}$. Find the fraction.

6. The denominator of a fraction is one more than twice the numerator. The sum of the fraction and its reciprocal is $2\frac{16}{21}$. Find the fraction.

7. Two numbers differ by 3 and their product is 504. Find the numbers.

8. Find three consecutive positive integers such that the sum of the square of the first and the product of the other two is 154.

9. The sum of two numbers is 16 and the sum of their reciprocals is $\frac{1}{3}$. Find the numbers.

10. The sum of two numbers is 18 and the sum of their reciprocals is $\frac{1}{4}$. Find the numbers.

11. The sum of two numbers is 25 and the sum of their reciprocals is $\frac{3}{10}$. Find the numbers.

12. The sum of two numbers is 15 and the sum of their reciprocals is $\frac{3}{10}$. Find the numbers.

13. The sum of a number and its reciprocal is $3\frac{41}{80}$. Find the numbers.

14. The sum of the squares of three consecutive positive integers is 50. Find the integers.

15. Find two natural numbers, the sum of whose squares is 25 times their sum and also equal to 50 times their difference.

TWO-DIGIT PROBLEMS

1. A two digit number is such that the product of its digits is 12. When 36 is added to the number, the digits are reversed. Find the number.

2. A two digit number is such that the product of its digits is 8. When 54 is subtracted from the number, the digits are reversed. Find the number.

3. A two digit number is four times the sum and twice the product of its digits. Find the number

4. A two digit number is such that the product of its digits is 14. When 45 is added to the number, the digits interchange their places. Find the number.

PRACTICE QUESTIONS
CLASS X : CHAPTER - 4
QUADRATIC EQUATIONS
METHOD OF QUADRATIC FORMULA

Show that each of the following equations has real roots, and solve each by using the quadratic formula:

1. $9x^2 + 7x - 2 = 0$

2. $x^2 + 6x + 6 = 0$

3. $2x^2 + 5\sqrt{3}x + 6 = 0$

4. $36x^2 - 12ax + (a^2 - b^2) = 0$

5. $a^2b^2x^2 - (4b^4 - 3a^4)x - 12a^2b^2 = 0$

6. $(a+b)^2x^2 - 4abx - (a-b)^2 = 0$

7. $4x^2 - 2(a^2 + b^2)x + a^2b^2 = 0$

8. $9x^2 - 9(a+b)x + (2a^2 + 5ab + 2b^2) = 0$

9. $4x^2 - 4a^2x + (a^4 - b^4) = 0$

10. $\sqrt{3}x^2 + 11x + 6\sqrt{3} = 0$

11. $4\sqrt{3}x^2 + 5x - 2\sqrt{3} = 0$

12. $3\sqrt{7}x^2 + 4x - \sqrt{7} = 0$

13. $\sqrt{7}x^2 - 6x - 13\sqrt{7} = 0$

14. $4\sqrt{6}x^2 - 13x - 2\sqrt{6} = 0$

15. $x^2 - (1+\sqrt{2})x + \sqrt{2} = 0$

16. $2x^2 + 5\sqrt{3}x + 6 = 0$

17. $x^2 - 2x + 1 = 0$

18. $3x^2 + 2\sqrt{5}x - 5 = 0$

19. $3a^2x^2 + 8abx + 4b^2 = 0, a \neq 0$

20. $2x^2 - 2\sqrt{6}x + 3 = 0$

21. $3x^2 - 2x + 2 = 0$

22. $\sqrt{3}x^2 + 10x - 8\sqrt{3} = 0$

23. $x^2 + x + 2 = 0$

24. $16x^2 = 24x + 1$

25. $25x^2 + 20x + 7 = 0$

26. $6x^2 + x - 2 = 0$

27. $x^2 + 5x + 5 = 0$

28. $p^2x^2 + (p^2 - q^2)x - q^2 = 0$

29. $abx^2 + (b^2 - ac)x - bc = 0$

30. $x^2 - 2ax + (a^2 - b^2) = 0$

31. $12abx^2 - (9a^2 - 8b^2)x - 6ab = 0$

32. $24x^2 - 41x + 12 = 0$

33. $2x^2 - 7x - 15 = 0$

34. $6x^2 + 11x - 10 = 0$

35. $10x^2 - 9x - 7 = 0$

36. $x^2 - x - 156 = 0$

37. $z^2 - 32z - 105 = 0$

38. $40 + 3x - x^2 = 0$

39. $6 - x - x^2 = 0$

40. $7x^2 + 49x + 84 = 0$

- -