HOLIDAY HOMEWORK (2018-19)
Class VIII
MATHS

1. There are 10 quantities given below. Classify them as either constant or variable. Mark your answer as C if it is a constant and V if it is a variable.
   - The number of eggs in a basket.
   - The number of mm in 1m.
   - The number in a dozen.
   - The number of coins in a box.
   - The speed of light in a vacuum.

Make 5 examples from your daily life for the use of variables.

2. Give one word for:-
   - The multiplicative identity of rational number(RN).
   - The operation of RN that is both commutative and associative.
   - The RN that is the same as additive inverse.
   - The number of RNs between two given numbers.
   - The value of the variable that satisfies the equation.

3. Convert the following statements into equations and solve it.
   - (a) 3 added to a number is 11
   - (b) 2 subtracted from a number is equal to 15.
   - (c) 3 times a number decreased by 2 is 4.
   - (d) 2 times the sum of the number x and 7 is 13.
4. Jane is 6 years older than her younger sister. After 10years, the sum of their ages will be 50 years. Find their present ages.

5. The denominator of a fraction is greater than the numerator by 8. If the numerator is increased by 17 and denominator is decreased by 1, the number obtained is 3/2, find the fraction.

6. A sum of Rs2700 is to be given in the form of 63 prizes. If the prize is of either Rs100 or Rs25, find the number of prizes of each type.
7. True and False statement
   a) The three consecutive positive integer can be written as x, x+1, x+2 where x is any positive integer
   b) The cost of a pencil is 5 Rs more than the cost of an eraser. If the cost of 8 pencils and 10 erasers is Rs 130, then the cost of pencil is 10 Rs
   c) if 2(x-13) = 14, then x=20
   d) The shifting of one number from one side of linearequation to another side is called transposition
   e) The three consecutive multiple of 7 would 7x,7x+7,7x+21

8. Fifteen years from now Ravi's age will be 4 times his current age. What is his current age?

   I) 4 year
   II) 5 years
   III) 6 years
   IV) 3 years

9. What do we get when we transpose 5/2 to RHS in the equation x/4 + 5/2 = -3/3?
   I.   x/4 = -3/4 + 5/2
   II.   x/4 = -5/2 + ¾
   III.   x/4 = -3/4 + (-5/2)
   IV.   none of these

10. In the equation 3x = 4-x, transposing -x to LHS we get
    I.   3x - x = 4
    II.   3x + x = 4
    III.   -3x + x = 4
    IV.   -3x - x = 4

11. If x/3 + 1 = 7/15, then which of the following is correct?
    I.   x/3 = 7/15 – 1
    II.   x/3 = -7/15 + 1
    III.   x/3 = -7/15 – 1
    IV.   none of these

12. If 7x+15 = 50, then which of the following is the root of the equation?
    I.   -5
    II.   65/7
    III.   5
    IV.   1/5

13. If 2x/5 = 4, the value of x is-
    I.   10
    II.   -10
    III.   -8/5
    IV.   8/5

14. If the sum of two consecutive numbers is 71 and one number is x, then the other number is-
    I.   x + (x+1) = 71
    II.   x + (x+2) = 71
    III.   x + x = 71
    IV.   none of these

15. Two year ago my age was x years, then what was my age 5 years ago?
    I.   X + 7
    II.   X - 2 - 5
    III.   X – 5
    IV.   X- 3

16. How old will I be after 10 years, if my age before 10 years was 'x' years?
    I.   X + 20
    II.   X - 20
    III.   X + 10
    IV.   X - 10

17. If the difference of two consecutive number is 15 and greater of them is x then the smaller number is:-
    I.   16
    II.   14
    III.   8
    IV.   7

18. If x is an even number, which is the next odd number?
    I.   X + 1
    II.   X + 2
    III.   X – 1
    IV.   X - 2

19. What should be added to -5/4 to get -1?
    I.   -1/4
    II.   1/4
    III.   1
    IV.   -3/4

20. What should be subtracted from -5/4 to get -1?
    I.   -1/4
    II.   1/4
    III.   1
    IV.   -3/4

21. Which of the following is the identity element?
    I.   1
    II.   -1
    III.   0
    IV.   None of these

23. Which of the following is the Multiplicative identity for rational numbers?
    I. 1   II. -1
    III. 0   IV. None of these

24. Which of the following is neither appositive nor a negative rational number?
    I. 1   II. 0
    III. Such a rational number doesnï¿½t exist   IV. None of these

25. Which of the following lies between 0 and -1?
    I. 0   II. -3
    III. -2/3   IV. 4/3

26. Which of the following is the product of 7/8 and -4/21?
    I. -1/6   II. 1/12
    III. -16/63   IV. -147/16

27. Which of the following is the product of (-7/8) and 4/21?
    I. -1/6   II. 12
    III. -63/16   IV. -16/147

28. Which of the following is the reciprocal of the reciprocal of a rational number?
    I. -1   II. 1
    III. 0   IV. The number itself

TEST YOUR KNOWLEDGE:-

Chapter-Rational Numbers

Maximum time- 30 minutes   **Maximum marks- 24(2 marks each)**

1. Write three rational numbers occurring between 1/3 and 4/5.

2. Multiply the negative of 2/3 by the inverse of 9/7.

3. What should be added to -16/3 to make it 1/9?

4. What should be subtracted from 5/8 to make it -1?

5. Write different properties of a rational number.

6. Represent 3/4 and 8/9 on a number line.

7. Find the greater of the two -12/5 and 4/9

8. Multiply the negative of 29/2 by its inverse.

9. Write a rational number equivalent to 9/10 having 90 as numerator.

10. Write a rational number equivalent to 18/29 having 87 as denominator.

11. Write 2/3, -4/9, -8/11 in ascending order.

12. Write 2/3, -4/9, -8/11 in descending order.

Chapter- Linear equation in one variable:-
MAX TIME: 90mins   **MAX MARKS: 30**

1. Solve the following Equations (2 marks each)
    a) $(2x - 5)/(3x - 1) = (2x - 1)/(3x + 2)$

    b) $(3 - 7x)/(15 + 2x) = 0$

    c) $(0.4y - 3)/(1.5y + 9) = -7/5$

    d) $2/(3x - 1) + 3/(3x + 1) = 5/3x$

    e) $2/(x - 3) + 1/(x - 1) = 5/(x - 1) - 2/(x - 2)$

    f) $15(x - y) - 3(x - 9) + 5(x + 6) = 0$

    g) $y/2 - 1/2 = y/3 + 1/4$

    h) $(0.5y - 9)/0.25 = 4y - 3$

    i) $[17(2 - y) - 5(y + 12)]/(1 - 7y) = 8$

2. Sunita is as twice as old as Ashima. If six years is subtracted from Ashima's age and 4 years added to Sunita's age, then Sunita will be four times Ashima's age. How old were they two years ago? (3 marks)

3. The sum of two twin prime numbers is 60. Find the prime nos.   (3 marks)

4. Of the three angles of a triangle, the second one is one third of the first and the third angle is 26 degrees more than the first angle. Find all the three angles of the triangle.   (3 marks)

5. If one number is multiplied by the Number the resulting number is the sum of the square of the first number and cube root of the second number. Find the number of such Pairs.   (3 marks)