SAINIK SCHOOL CHANDRAPUR

(MINISTRY OF DEFENCE)

WINTER VACATION HOME WORK

MATHEMATICS

CLASS VIII

1. Rearrange suitably and find the sum:
   a) $\frac{-11}{7} + \frac{7}{9} + \frac{(-4)}{9} + \frac{3}{7}$
   b) $\frac{-4}{7} + \frac{7}{6} + \frac{2}{7} + 3 + \frac{(-11)}{6}$
2. If p = 5/6, q = -7/6 and r= 13/16, then verify associative property of addition for these rational numbers.
3. What number should be added to (2/3 + 3/5) to get 4?
4. Subtract the sum of (-5/3) and (-8/7) from the sum of 3/2 and (-31/28).
5. Verify a x (b x c) = (a x b) x c , if a = ½ , y = -1/3 and z = ¼. Also mention the name ofproperty
6. Find value using distributive property:
   a) $\frac{4}{5} \times \frac{-3}{7} + \frac{1}{5} \times \frac{-3}{7}$
   b) $\frac{1}{2} \times [\frac{3}{4} + (\frac{-5}{12})]$
7. Fill in the blanks :
   a) -4/13 – (-3/26) =____
   b) -7/9 + _____= 3
8. If a = 2/3 and b= 3/4, then find (a x b) / (a – b).
9. Find four rational numbers between -1/5 and 1/6.
10. Represent each of the following rational numbers as a point on the number line:
    a) -4/5 b) 8/7
11. By what number should (-33/16) be divided to get (-11/4)?
12. Solve the equation :8z + 4 = 3 (z-1) + 7
13. Solve the equation
    $\frac{-1}{6} + \frac{a}{4} = \frac{a}{5} + \frac{3}{10}$
14. Solve the equation :
    $\frac{3p-2}{4} - \frac{(2p+3)}{3} + p = \frac{2}{3}$
15. The difference of thrice a number and twice the same number when divided by 7 gives usthe number 6. Find the number.
17. The present age of Mohan is three times the age of son. After 8 years, the sum of their agesis 72 years. Find their present ages.
18. The cost of 4 pens and 8 pencils is Rs 84. If one pen costs RS 12 more than the cost of one pencil, find the price of one pen and pencil separately.
19. A man left one third property to his son, one fourth to his daughter and the remaining Rs25000 to his wife. How much was the total asset of the man?
20. The sum of four consecutive integers is 266. What are the integers?

21. Sum of digits of a two digit number is 11. The given number is less than the number obtained by reversing the digits by 9. Find the number.
22. Two equal sides of a triangle are each 4m less than three times the third side. Find the dimension of the triangle if the perimeter is 55 cm.
23. A man was engaged as typist for the month of February 2016. He was paid Rs 500 per day but Rs 100 were deducted for the days he was absent. He received Rs 9100 as salary for the month. For how many days did he work?
24. A lady went to a bank with Rs 1,00,000. She asked the cashier to give Rs 500 and Rs 1000 currency notes in return. She got 175 currency notes in all. Find the number of notes of each denomination that she received.
25. A playground is in the shape of kite. The perimeter is 106 m. If one of its side is 23 m , findthe length of other three sides.
26. The diagonals of a rhombus are 8 cm and 15 cm. Find the length of its sides.
27. What shape is formed by joining the end points of two sticks of length 7 cm if :
    a) They bisect each other.
    b) They bisect each other at right angles.
28. The exterior angle of a regular polygon is one third of its interior angle. How many sides hasthe polygon?
29. In a parallelogram, PQRS, angle P = $(2x + 10)^o$ and angle R = $(3x – 20)^o$. Find the value of x.
30. The base angles A and B of a trapezium ABCD measure 110^o and 120^o. Find measure ofangles C and D.

PROJECT WORK.

1. Prepare a chart (A – 3 size) on application of mathematics in science.
2. Prepare a chart (A – 3 size) on application of mathematics in art and architecture.