

Holidays home work

CLASS-VIII (MATHEMATICS)

A.Prepare a creative PowerPoint presentation on any one of the following topics

1. Maths and architecture
2. Maths in kitchen.
3. Amazing symmetry.
4. Maths in disaster management.

B. Prepare a project based on the topic allotted according to roll numbers. File your research work keeping the following points in order:

- Title page (topic of the project)
- Cover page (essence of the project)
- Table of contents(index)
- Introduction of the topic
- History (when, how and by whom it has been discovered)
- Terminology and symbol used
- Explanation of the topic
- Game or puzzle related to the topic
- Mathematical problems with solutions (only 5)
- Real life applications (use pictures)

The topics allotted are as follows:

- ❖ Roll no. 1-10 Rational numbers
- ❖ Roll no. 11-20 Linear Equation in one variable
- ❖ Roll no. 21-30 Understanding quadrilateral
- ❖ Roll no. (31- Above) Practical Geometry and Data handling

C) Make a MDP on the theme 'Natural resources'

D)Solve these questions in your note book

QUESTIONS ON SQUARE ROOT

1. What could be the possible 'one's' digits of the square root of each of the following numbers?
(i) 99856 (ii) 998001 (iii) 66025
2. Without doing any calculation, find the numbers which are surely not perfect squares.
(i) 257 (ii) 408 (iii) 441

3. Find the square roots of 100 and 169 by the method of repeated subtraction.
4. Find the square roots of the following numbers by the Prime Factorisation Method.
(i) 729 (ii) 7744 (iii) 529 (iv) 400 (v) 9604 (vi) 1764 (vii) 5929 (viii) 4096 (ix) 9216 (x) 8100
5. For each of the following numbers, find the smallest whole number by which it should be multiplied so as to get a perfect square number. Also find the square root of the square number so obtained. (i) 252 (v) 1458 (ii) 180 (iii) 1008 (iv) 2028 (vi) 768
6. For each of the following numbers, find the smallest whole number by which it should be divided so as to get a perfect square. Also find the square root of the square number so obtained. (i) 252 (v) 2800 (ii) 2925 (iii) 396 (iv) 2645 (vi) 1620
7. The students of Class VIII of a school donated ₹ 2401 in all, for Prime Minister's National Relief Fund. Each student donated as many rupees as the number of students in the class. Find the number of students in the class.
8. 2025 plants are to be planted in a garden in such a way that each row contains as many plants as the number of rows. Find the number of rows and the number of plants in each row.
9. Find the smallest square number that is divisible by each of the numbers 4, 9 and 10.
10. Find the smallest square number that is divisible by each of the numbers 8, 15 and 20
11. Find the square root of each of the following numbers by Division method.
(I) 3249 (II) 1369 (III) 576 (IV) 1024 (V) 3481 (VI) 5776 (VII) 3136 (iv) 529

QUESTIONS ON CUBE ROOT

1. Which of the following numbers are not perfect cubes? (i) 128 (ii) 1000 (iii) 100 (iv) 46656
2. Find the smallest number by which each of the following numbers must be multiplied to obtain a perfect cube. (i) 243 (ii) 256 (iii) 72 (iv) 675 (v) 100
3. Find the smallest number by which each of the following numbers must be divided to obtain a perfect cube. (i) 81 (ii) 128 (iii) 135 (iv) 192
4. Find the cube root of each of the following numbers by prime factorisation method.
(i) 15625 (ii) 13824 (iii) 110592 (iv) 27000 (v) 46656