HOLIDAY HOMEWORK

CLASS-VIII

Student will prepare a project file on the topic "properties of operation on rational numbers"

It will contain the following

1. Front page contains the heading "MATHEMATICS PROJECT WITH ART INTEGRATION"
2. Second page contains the following
   (a) School name
   (b) Student name
   (c) Class/section
   (d) Roll number
   (e) Subject
   (f) Subject in charge
3. Third page contains the topic of the project
4. From fourth page student will start their work
5. All the pages are well decorated

ASSIGNMENT-2

6. Find the square of the following numbers using column method
   (a) 83   (b) 51

7. Find the square of the following numbers using diagonal method
   (a) 23   (b) 49   (c) 219   (d) 558

8. Find the square of the following numbers using the identity
   $(a + b)^2 = a^2 + 2ab + b^2$ (a) 409   (b) 811   (c) 98

9. Find the square of the following numbers using the identity
   $(a - b)^2 = a^2 - 2ab + b^2$ (a) 396   (b) 489   (c) 87

10. Find the square of 15, 25, 35, 45, 55, 65, 75, 85, 95, 105, 125

11. Find the square of 98, 86, 94, 99, 102, 108, 106, 112

12. The perimeter of two squares are 40 and 96 meters respectively. Find the perimeter of another square equal to the sum of the first two squares.

13. The area of a rectangular park whose length is twice its breadth is 2450 m^2. Find the perimeter of the park

14. Find three numbers in the ratio 2:3:5, the sum of whose squares is 608.

15. Find the value of (a) $\sqrt{248 + \sqrt{52 + \sqrt{144}}}$ (b) $\sqrt{1191.16 + 70 \times \sqrt{129.96}}$ (c) $\sqrt{10 + \sqrt{25 + \sqrt{108 + \sqrt{154 + \sqrt{225}}}}}$

16. Given that $\sqrt{4096} = 64$, find the value of $\sqrt{4096} + \sqrt{40.96}$

17. If $\sqrt{3364} = 58$ and $\sqrt{1936} = 44$, find the value of $\dfrac{\sqrt{0.3364} + \sqrt{0.1936}}{\sqrt{0.3364} - \sqrt{0.1936}}$

18. Find the square root of (a) 2916 (b) 7056 using prime factorization method

19. Find the square root of (a) 8649 (b) 21316 (c) 135424

20. Find the least number of 7-digits which is a perfect square.

21. Simplify (a) $\dfrac{25 \times t^{-4}}{5^{-3} \times 10 \times t^{-8}}$ (b) $\dfrac{(-2)^3 \times (-2)^7}{3 \times 4^6}$

22. By what number should $\left(\dfrac{1}{2}\right)^{-1}$ be multiplied so that the product is $\left(\dfrac{-5}{4}\right)^{-1}$

23. Moon is 384400000 Km away from earth, express the distance in scientific notation.

24. The charge on electron is $\dfrac{16}{1000000000000000000}$ coulombs. Express it in standard form.

25. If $x = \left(\dfrac{5}{4}\right)^5 \div \left(\dfrac{5}{4}\right)^3$, find x^2