

HOLIDAYS HOMEWORK

CLASS-VIII

SUBJECT-MATHS

1. For what value of x , the following statement is true?

$$1\frac{1}{6} \times 1\frac{2}{9} = \frac{11}{9} \times x$$

2. Sudha had Rs. 100 with her. She bought $3\frac{1}{2}$ liters of milk at Rs. $22\frac{1}{2}$ per liter. How much money is left with her?

3. What should be subtracted from $(\frac{3}{4} - \frac{2}{3})$ to get $-\frac{1}{6}$?

4. Simplify:

$$(\frac{13}{9} \times \frac{-15}{2}) + (\frac{7}{3} \times \frac{8}{5}) + (\frac{3}{5} \times \frac{1}{2})$$

5. Verify the property:

$$x \times (y + z) = x \times y + x \times z \text{ by taking}$$

a) $x = \frac{-3}{7}, y = \frac{12}{13}, z = \frac{-5}{6}$

b) $x = \frac{-3}{4}, y = \frac{-5}{2}, z = \frac{7}{6}$

6. Divide the sum of $\frac{-13}{5}$ & $\frac{12}{7}$ by the product of $\frac{-31}{7}$ & $\frac{-1}{2}$

7. By what number should $\frac{-3}{4}$ be multiplied in order to produce $\frac{2}{3}$?

8. Divide the sum of $\frac{65}{12}$ & $\frac{12}{7}$ by their difference.

9. Find 6 rational numbers between $\frac{3}{5}$ & $\frac{3}{4}$

10. Nine times the reciprocal of a rational number is equal to 6 times the reciprocal of 17.
Find the rational number.

11. Simplify:

a) $(4^4 \times 5^{-2})(4^2 \div 5^2)$

b) $5x^2 \div 15(xy)^2$

12. Find x so that $\left[\left(\frac{1}{3}\right)^{-2} \times \left(\frac{1}{3}\right)^{-5} \right] = \left(\frac{1}{3}\right)^{2x+1}$

13. By what number should $\left(\frac{5}{7}\right)^{-5}$ be multiplied so that the product is 1?

14. By what number should $(-15)^{-1}$ be divided so that the quotient be equal to $(-5)^{-1}$?

15. If the diameter of the sun and the earth are 1.4×10^9 meters and 1.275×10^7 meters respectively. Compare the two.

16. Find the least number which must be added to 306452 to make it a perfect square.

17. Find the perimeter of a square field whose area is 49 km.
18. Find the greatest number of four digits which is a perfect square.
19. The area of a square playground is 256.6404 square meters. Find the length of one side of play ground.
20. Find the square root of following by long division method up to 3 digits
 - a) 306452
 - b) 73.582
21. A survey of 400 families of a town was conducted to find out how many children are there in a family. The result of the survey is given below:

Number of families	50	68	182	74	26
Number of children	0	1	2	3	4

Find the probability that the family has

- a) More than 2 children
 - b) Less than 4 children
22. The lower limit of a class interval is 25 and its class mark is 30.
What should be its upper limit?

Project

Make a Maths Journal which will contain following Topics:

1. Life History of any two Indian mathematicians.
 2. Jokes on Maths (5-7)
 3. Write Articles on following topics:
 - a. Maths in daily life
 - b. Latest discoveries in mathematics
 - c. Why you love mathematics?
 - d. Maths in Nature
 4. Write a poem on Maths.
- Use your skill of drawing and creativity to make your journal more beautiful and attractive.