CLASS –VII
MATHEMATICS

1) Sunita cut $\frac{3}{4}$ m from a piece of $2\frac{2}{3}$ m long rope. Is there is enough rope left for two pieces to be of $\frac{5}{6}$ m long each?

2) In a school $\frac{3}{5}$ of the students are girls If the number of boys in the school is 2000, find the total strength of the school.

3) A kitchen measures 3.75m by 4.2m. Find the area of the kitchen. The area of the living room is one and a half times that of the kitchen. Find the total area of the living room and the kitchen.

4) Find the product of the largest and the smallest fractions from the following set:

$$\frac{9}{11}, \frac{3}{11}, \frac{7}{11}, \frac{5}{11}, \frac{10}{11}, \frac{6}{11}$$

5) Simplify: (– 21) + 8 ÷ [6 – 4]

6) Which product is closer to zero, the product of 73 X (–103) or the product of (– 73) and (–183). Show using calculations.

7) Divide the sum of $\frac{65}{12}$ and $\frac{8}{3}$ by their difference.

8) Simplify using suitable properties-

   i) 200 X 2543 – 100 X 25542

   ii) 512 X (– 63) – 37 x 512

   iii) 684 + 684 X (– 19)

   iv) 564 X (– 12) – 564

   v) 125 X (– 400) X 8

9) Which integer is equal to its additive inverse?

10) Multiply 8 by (-1) and state whether the product is the additive inverse of 8 or not.

11) By what number should (-135) be divided to obtain 9?

12) Sum of two integers is 83. If one of them is -49, the other is _____.

13) Arrange the following fractions in descending order

$$\frac{36}{12}, \frac{7}{8}, \frac{64}{16}, \frac{5}{4}$$

14) If 91.78 ÷ 13 = 7.06, find the quotient of each of the following:

   a) 917.8 ÷ 13   b) 9.178 ÷ 13   c) 9178 ÷ 13

15) $\frac{2}{3}$ of the beads in a box are red, $\frac{1}{4}$ are yellow and the rest are blue. There are 35 more red beads than blue beads. How many beads are there altogether?

16) The highest point on earth is the Mount Everest at a height of 8,848m above sea level. The lowest point on the earth is Mariana Trench in the Pacific Ocean, at a depth of 11,034m below sea level. Find the vertical height difference between the Mount Everest and the Mariana Trench.

17) Simplify : 36 – [15 – { 9 ÷ (17 + 3 X 2 – 20)}]

18) Pinky spent $\frac{3}{5}$ of her money on a hand bag. She spent rest of the money on a dress and a belt. The hand bag costs twice as much as the dress. The dress costs Rs. 20 more than the belt. How much money did she have in the beginning?

19) Which is greater, the product of 7.82 and 8.75 or the product of 6.91 and 9.07 and by how much?

20) Two different rocks from a recent volcanic eruption are compared. Sample A is a rock with mass of 560g and a volume of 343 cubic cm and the sample B has a mass of 905g and a volume of 507 cubic cm. Which sample is denser and by how much? Round off your answer to the nearest hundreds (Density = mass / volume)

21) During a fair, Reeta gains Rs. 2 on each pen and loses Rs. 1 on each pencil. She sells 50 pens and some pencils, losing Rs 15 in all. How many pencils does she sell?

22) Add the additive inverse of $12 + 5 - [9 - \{6 \div 2 - (6 - 12 \div 3) \div 2\}] - 5$ to the product of -7, 4 and -9.

23) Write one billionth of a second as a decimal. It is also called as _____ second.

24) Vedika decided to go to the market to get her shoe repaired. She told her mother that she would be back in two and two fifth hours. As she began the watch showed 10: 46 a.m. What time should she be back at home?

25) Suhana is trying to fit her encyclopedia on a book shelf. Each encyclopedia book is $2\frac{1}{4}$ inch thick. The shelf is $2\frac{1}{4}$ feet wide. How many books will she be able to fit? (1 feet = 12 inches)

26) A water bottle contains $4\frac{4}{5}$ litres of water. Rohit drinks $1\frac{3}{5}$ litres of water every hour. Does he has enough water to last for 4 hours?

27) Find the value of $-8 - (-10)$ using number line.

28) Write a pair of integers whose sum is :
   i) zero   ii) a negative integer   iii)an integer smaller than both the integers

29) An aeroplane was flying at a height of 1800m. If it descends at a constant rate of 60m per minute, how long will it take to descend to a height of 300m?

30) In a city, $\frac{1}{6}$ of the people were 60 years or older, $\frac{1}{4}$ were under 18 years. If the total number of people in the city is 60,000 then how many people were between 18 and 60 years?