

Assignment (class-VIII)-2

Rational Number

1. Using rearrangement property: $-\frac{7}{3} + \frac{-2}{5} + \frac{-11}{6} + \frac{3}{10}$.
2. verify: $x + (y + z) = (x + y) + z$ by taking $x = \frac{1}{4}$, $y = \frac{1}{5}$, $z = \frac{1}{6}$.
3. The sum of two rational numbers is $\frac{4}{5}$. If one of them is $\frac{3}{20}$. find other.
4. A persons earn's ₹ 100 in a day. If he spent ₹ $14\frac{2}{3}$ on food and ₹ $30\frac{2}{3}$ on petrol. How much did he save on that day?
5. From a pipe 12 m long, two pieces of lengths $4\frac{3}{5}$ m and $6\frac{4}{7}$ m are cut off. what is the length of the remaining pipe?

Playing with number

1. Find all possible values of x for which the 4-digit number 754 x is divisible by 3. Also find each such number.
2. Find the value of x for which the number $x806$ is divisible by 9. Also find the number.

Percentage

1. If total population of a village is 2100. Out of this 60% population is of female. Find the number of males.
2. Arvind spends 25% on house rent, 10% on conveyance and 40% on food of his monthly salary. If he saves ₹ 3000 per month then find his monthly salary.
3. 5% of a number is 1. Find the number.
4. Divide ₹ 14000 among A, B and C such that A gets 50% of what B gets and B gets 50% of what C gets.
5. A Balanced diet contains 25% fats, 12% proteins and rest carbohydrates. If a child needs 2600 calories in his food, find amount of carbohydrates (in calories) in his food.

operation of algebraic exp.

1. The perimeter of a triangle is $7x^2 - 17xy + 15y^2 + 8$ and two sides are $3x^2 - 6xy + 4y^2 - 5$ and $2x^2 - 9xy + 6y^2 + 6$. Find the third side of the triangle.
2. Find the lengths of a rectangle whose area is $20x^3y^2 - 15x^2y^2 + 10xy^2 + 5xy$ and breadth is $5xy$.
3. If $x + \frac{1}{x} = 5$ find $x^2 + \frac{1}{x^2}$.
4. write quotient and remainder when we divide,
(a) $6x^2 - 31x + 47$ by $2x - 5$.
(b) $5x^2 - 13x + 7$ by $x^2 - 3x + 4$.

Direct and Inverse proportion

1. A car is travelling at the average speed of 65 km/hr . How much distance would it cover in 2 hrs 25 minutes.
2. In a fort, 300 men had provision for 90 days. After 20 days, 50 men left the fort. How long would the food last at the same rate.
3. In a hostel, 75 students had food provisions for 24 days. If 15 students leave the hostel, for how many days would the food provision last?
4. In 8 days, the earth picks up (6.4×10^7) kg of dust from the atmosphere. How much dust will it pick up in 15 days?
5. If x & y are directly proportional, find x_1 & x_2 .

x	3	x_1	x_2
y	72	120	192