

ASSIGNMENT (2017-18) MATHS

CLASS-VIII

Q 1. Add the following rational Numbers:-

I. $\frac{-2}{5}$ and $\frac{4}{5}$

II. $\frac{-7}{3}$ and $\frac{1}{3}$

III. $\frac{5}{6}$ and $\frac{-1}{6}$

IV. $\frac{-17}{15}$ and $\frac{-1}{15}$

Q2. Verify the following:

i. $(\frac{3}{4} + \frac{-2}{5}) + \frac{-7}{10} = \frac{3}{4} + (\frac{-2}{5} + \frac{-7}{10})$ (ii) $(\frac{-7}{11} + 2/-5) \frac{-13}{22} = \frac{-7}{11} + (\frac{2}{-5} + \frac{-13}{22})$

(iii) $-1 + (\frac{-2}{3} + \frac{-3}{4}) = (-1 + \frac{-2}{3}) + \frac{-3}{4}$

Q3. Subtract:

(i) $\frac{3}{4}$ from $\frac{1}{3}$ (ii) $\frac{-5}{6}$ from $\frac{1}{3}$ (iii) $\frac{-8}{9}$ from $\frac{-3}{5}$ (iv) $\frac{-9}{7}$ from -1 (v) $\frac{-18}{11}$ from 1 (vi) $\frac{-13}{9}$ from 0 (vii) -7 from $\frac{-4}{7}$

Q4. What number should be added to $\frac{-5}{8}$ so as to get $\frac{-3}{2}$?

Q5. What number should be subtracted from $\frac{-2}{3}$ from $\frac{-1}{6}$

Q6 Using the rearrangement property, finds the sum:-

(i) $\frac{4}{3} + \frac{3}{5} + \frac{-2}{3} + \frac{-11}{5}$ (ii) $\frac{-13}{20} + \frac{11}{14} + \frac{-5}{7} + \frac{7}{10}$

Q7. Find each of the following products (i) $\frac{3}{5} \times \frac{-7}{8}$ (ii) $\frac{-9}{2} \times \frac{5}{4}$ (iii) $\frac{-6}{11} \times \frac{-5}{3}$ (iv) $\frac{-2}{3} \times \frac{6}{7}$ (v) $\frac{-12}{5} \times \frac{10}{-3}$ (vi) $\frac{25}{-9} \times \frac{3}{-10}$

(vii) $\frac{5}{-18} \times \frac{-9}{20}$ (viii) $\frac{-13}{15} \times \frac{-25}{26}$ (ix) $\frac{16}{-21} \times \frac{14}{5}$ (x) $\frac{-7}{6} \times 24$ (xi) $\frac{7}{24} \times (-48)$ (xii) $\frac{-13}{5} \times (-10)$

Q8. The sum of two rational number is -2 . If one of the numbers is $\frac{-14}{5}$, find the other.

Q9. What number should be added to $\frac{-5}{8}$ so as to get $\frac{-3}{2}$?

Q10 What number should be subtracted from $\frac{-2}{3}$, to get $\frac{-1}{6}$?

Q11. Find each of the following products:

(i) $\frac{3}{5} \times \frac{-7}{8}$ (ii) $\frac{-9}{2} \times \frac{5}{4}$ (iii) $\frac{-2}{3} \times \frac{6}{7}$ (iv) $\frac{-12}{5} \times \frac{-10}{-3}$

Q12. Simplify:-

(i) $\frac{4}{9} \div \frac{-5}{12}$ (ii) $-8 \div \frac{-7}{16}$ (iii) $\frac{-12}{7} \div (-18)$ (iv) $\frac{-1}{10} \div \frac{-8}{5}$ (v) $\frac{-16}{35} \div \frac{-15}{14}$ (vi) $\frac{-65}{14} \div \frac{13}{7}$

Q13. Verify whether the given statement is true or false:-

(i) $\frac{13}{5} \div \frac{13}{5} = \frac{13}{5} \div \frac{13}{5}$ (ii) $\frac{-8}{9} \div \frac{-4}{3} = \frac{-4}{3} \div \frac{-8}{9}$

Q14:-Find the square root of each of the following numbers by using the method of prime factorization:

(i) 2025 (ii) 4096 (iii) 7056 (iv) 9216 (v) 11025 (vi) 15876

Q15:-Find the smallest number by which 252 must be multiplied to get a perfect square. Also, find the square root of the perfect square so obtained.

Q16:-Using the prime factorization method. Find which of the following numbers perfect squares are:

(i) 441 (ii) 576 (iii) 5625 (iv) 9075

Q17:-By what least number should the given number be multiplied to get a perfect square number? In each case, find the number whose square is the new number

(i) 3675 (ii) 2156 (iii) 9075 (iv) 7623

Q18:-Find the largest number of 2 digits which is a perfect square.

Q19:-Evaluate:- 1. $\sqrt{576}$ 2. $\sqrt{1444}$ 3. $\sqrt{4489}$ 4. $\sqrt{7056}$ 5. $\sqrt{9025}$ 6. $\sqrt{10404}$

Q20:-Find the least number which must be subtracted from 2509 to make it a perfect square.

Q21:-Find the least number of four digits which is a perfect square. Also find the square root of the number so obtained.

Q22:-Find the greatest number of five digits which is perfect square. Also find the square root of the number so obtained

Q23:-The area of a square field is 60025m².A man cycles along its boundary at 18km/h.In how much time will he return to the starting point?

Q25:-The marks obtained by 40 students of a class in an examination are given below:-

8,47,22,31,17,13,38,26,3,34,29,11,22,7,15,24,38,31,21,35,42,24,45,23,21,27,29,49,25,48,21,15,18,27,19,45,14,34,37,34.

Prepare a frequency distribution table with equal class intervals, starting from 0-10(where 10 is not included)

Q26:-The weekly pocket expenses (in rupees) of 30 students of a class are given below:-

62,80,110,75,84,73,60,62,100,87,78,94,117,86,65,68,90,80,118,72,95,72,103,96,64,94,87,85,105,115,
Construct a frequency table with class intervals 60-70(where 70 is not included), 70-80, 80-90 etc.
Also draw histogram of each question.

Q27:-There are 900 creatures in a zoo as per list given below:

| Beast animals | Other land animals | Birds | Water animals | Reptiles |
|---------------|--------------------|-------|---------------|----------|
| 150 | 400 | 175 | 125 | 50 |

Represent the data above by a pie chart

Q28:-The data given below shows number of hours spent by a school boy on different activities on a working day.

| Activity | School | Homework | Play | Sleep | Others | Total |
|-----------------|--------|----------|------|-------|--------|-------|
| Number of hours | 7 | 4 | 2 | 8 | 3 | 24 |

Represent the above data by a pie chart.

Q29:-In a single throw of two coins, find the probability of getting (i)both tails(ii)at least 1 tail (iii)at the most 1 tail.

Q30:-It is known that a box of 100 electric bulbs contains 8 defective bulbs. One bulb is taken out at random from the box. What is probability that the bulb drawn is (i) defective? (ii) Non-defective?