

## CLASS - VII

MATHEMATICS

Date: -28/04/2020

### CHAPTER 4 - RATIONAL NUMBERS

- ★ Watch the online videos of “Rational Numbers - Lecture 5 & 6 ” from Optimum Online E-Learning Platform and try to comprehend the concepts of Rational numbers. After that try to solve the questions given in your assignment.
  - ★ Lecture No.. 05
  - ★ Lecture No.06
1. In each of the following, find an equivalent form of the rational number having a common denominator:
    - i.  $(\frac{3}{4})$  and  $(\frac{5}{12})$
    - ii.  $(\frac{2}{3})$ ,  $(\frac{7}{6})$  and  $(\frac{11}{12})$
    - iii.  $(\frac{5}{7})$ ,  $(\frac{3}{8})$ ,  $(\frac{9}{14})$  and  $(\frac{20}{21})$
  2. Determine whether the following rational numbers are in the lowest form or not:
    - i.  $(\frac{65}{84})$
    - ii.  $(\frac{-15}{32})$
    - iii.  $(\frac{24}{128})$
    - iv.  $(\frac{-56}{-32})$
  3. Express each of the following rational numbers to the lowest form:
    - i.  $(\frac{4}{22})$
    - ii.  $(\frac{-36}{180})$
    - iii.  $(\frac{132}{-428})$
    - iv.  $(\frac{-32}{-56})$
  4. Which of the following rational numbers are equal?
    - i.  $(\frac{-9}{12})$  and  $(\frac{8}{-12})$
    - ii.  $(\frac{-16}{20})$  and  $(\frac{20}{-25})$
    - iii.  $(\frac{-7}{21})$  and  $(\frac{3}{-9})$
    - iv.  $(\frac{-8}{-14})$  and  $(\frac{13}{21})$
  5. In each of the following pairs represent a pair of equivalent rational numbers, find the values of x.
    - i.  $(\frac{2}{3})$  and  $(\frac{5}{x})$

- ii.  $(-3/7)$  and  $(x/4)$
- iii.  $(3/5)$  and  $(x/-25)$
- iv.  $(13/6)$  and  $(-65/x)$

6. In each of the following, fill in the blanks so as to make the statement true:

- i. A number which can be expressed in the form  $p/q$ , where  $p$  and  $q$  are integers and  $q$  is not equal to zero, is called a .....
- ii. If the integers  $p$  and  $q$  have no common divisor other than 1 and  $q$  is positive, then the rational number  $(p/q)$  is said to be in the ....
- iii. Two rational numbers are said to be equal, if they have the same .... form
- iv. If  $m$  is a common divisor of  $a$  and  $b$ , then  $(a/b) = (a \div m)/\dots$
- v. If  $p$  and  $q$  are positive Integers, then  $p/q$  is a ..... rational number and  $(p/-q)$  is a ..... rational number.
- vi. The standard form of  $-1$  is ...
- vii. If  $(p/q)$  is a rational number, then  $q$  cannot be ....
- viii. Two rational numbers with different numerators are equal, if their numerators are in the same .... as their denominators.

7. In each of the following state if the statement is true (T) or false (F):

- i. The quotient of two integers is always an integer.
- ii. Every integer is a rational number.
- iii. Every rational number is an integer.
- iv. Every fraction is a rational number.
- v. Every rational number is a fraction.
- vi. If  $a/b$  is a rational number and  $m$  any integer, then  $(a/b) = (a \times m)/(b \times m)$
- vii. Two rational numbers with different numerators cannot be equal.
- viii. 8 can be written as a rational number with any integer as denominator.
- ix. 8 can be written as a rational number with any integer as numerator.
- x.  $(2/3)$  is equal to  $(4/6)$ .

\*\*Link of Optimum Online E-Learning Platform:-<https://www.optimumschool.net/online/login.php>

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