

# SARALA BIRLA PUBLIC SCHOOL

Birla Knowledge City, Mahilong, Ranchi  
CLASS-IX (2020-21)

Sub: MATHEMATICS  
Assignment-2



## Assignment II (Mathematics ) class IX

1. Is the following statements are true or false ? Give reason for your answer .

(i) Every whole number is a natural number.

(ii) Every integer is a rational number.

2. Write the following in decimal form and say what kind of decimal expansion it is

(i)  $\frac{1}{11}$

(ii)  $\frac{3}{13}$

3. Express  $0.\overline{8}$  in the form of  $\frac{p}{q}$  .

4. Write few examples of rational numbers in the form of  $\frac{p}{q}$  ( $q \neq 0$ ), where p and q are integers with no common factor other than 1 and having

terminating decimal expression. Can you guess what property  $q$  must satisfy ?

5. Simplify :  $(5 + \sqrt{7})(2 + \sqrt{5})$

6. Rationalise the denominator :  $\frac{1}{2+\sqrt{3}}$  .

7. Classify the following numbers as rational or irrational :

(i)  $2 - \sqrt{5}$

(ii)  $(3+\sqrt{3}) - \sqrt{3}$

8. Write laws of exponents of real number ( where  $a$ ,  $n$  and  $m$  are natural numbers,  $a$  is called base ,  $m$  and  $n$  are the exponents) .

9. (i)  $\sqrt[n]{a} = \underline{\hspace{2cm}}$

(ii)  $a^{m/n} = \underline{\hspace{2cm}}$

10. By using laws of exponents of real numbers, solve the following :

(i)  $64^{1/2}$

(ii)  $2^{2/3} \cdot 2^{1/5}$

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