CLASS - X , NCERT

CHAPTER	3.2	3.3	3.4	3.5	3.6	8.1	8.2	8.3	8.4
Q. NO	2,3,4,7	1,2	1	1,2,3	1	1-10	1,2,3	1-7	5

NOTE:- (I) Date of submission 18/06/2018

      (ii) The students are advised to write the questions and solutions with two different colour ink, avoid red and green ink.

STD - IX , MATHS ASSIGNMENT-2018-19.

Exponents.

1. If $ab + bc + ca = 0$, find value of $\dfrac{1}{a^2-bc} + \dfrac{1}{b^2-ca} + \dfrac{1}{c^2-ab}$

2. Simplify :→ $\dfrac{(25)^{5/2} \times (729)^{1/2}}{(125)^{2/3} \times (27)^{2/3} \times 8^{4/3}}$

3. If $(64)^{2x-5} = 4 \times 8^{x-5}$ find x.

4. Prove that :→ $\dfrac{5^{28} + 5^{27} + 5^{26}}{5^{29} + 5^{28} - 5^{27}} = \dfrac{31}{145}$

5. If $3^p = 5^q = (225)^{-\hbar}$, then show that $\dfrac{2}{p} + \dfrac{2}{q} + \dfrac{1}{\hbar} = 0$.

6. Simplify: $\sqrt[3]{135} - \sqrt[3]{192} + \sqrt[3]{375} - \sqrt[3]{3} + \sqrt[3]{625}$.

Rationalitation

1. If $x = \dfrac{5-\sqrt{21}}{2}$ then prove that $\left(x^3 + \dfrac{1}{x^3}\right) - 5\left(x^2 + \dfrac{1}{x^2}\right) + \left(x + \dfrac{1}{x}\right) = 0$

2. Express with a rational denominater : $\dfrac{15}{\sqrt{10} + \sqrt{20} + \sqrt{40} - \sqrt{5} - \sqrt{80}}$.

3. Simplify :→ $\dfrac{7\sqrt{3}}{\sqrt{10} + \sqrt{3}} - \dfrac{2\sqrt{5}}{\sqrt{6} + \sqrt{5}} - \dfrac{3\sqrt{2}}{\sqrt{15} + 3\sqrt{2}}$

4. If $\dfrac{7 + 3\sqrt{5}}{7 - 3\sqrt{5}} = \dfrac{a}{2} + \dfrac{b\sqrt{5}}{2}$ find a and b.

5. If $a = 7 + \sqrt{40}$ find $\sqrt{a} + \dfrac{1}{\sqrt{a}}$.

6. Rationalise the denominater : $\dfrac{1}{\sqrt{5} + \sqrt{6} - \sqrt{2}}$.

7. If $\sqrt{2} = 1.414$, $\sqrt{3} = 1.732$ then find the value of

$\dfrac{4}{3\sqrt{3} - 2\sqrt{2}} + \dfrac{3}{3\sqrt{3} + 2\sqrt{2}}$.