Mathematics Assignment - Class IX
No. 3

NUMBER SYSTEM

Q1. Find an irrational number between
   i) 1 and 2
   ii) 3 and 4
   iii) 1 and 5

   [Ans:- i) $\sqrt{1 \times 2} = \sqrt{2}$ ii) $\sqrt{3 \times 4} = \sqrt{12}$ iii) $\sqrt{1 \times 5} = \sqrt{5}$

Q2. Find two irrational number between 3 and 4

   [Ans $\sqrt{3 \times 4} = \sqrt{12}$ → Ist Nos.
   $\sqrt{3 \times \sqrt{12}} = \sqrt{3 \times \sqrt{12}}$ → 2nd Nos.]

Q3. Locate $\sqrt{2}$, $\sqrt{3}$, $\sqrt{5}$ on Number line

Q4. Find $\sqrt{3.6}$ geometrically

Q5. Find the value of $\sqrt{12}$ geometrically and verify by actual calculations.

Q6. Simplify   i) $2\sqrt{6} \times 3\sqrt{7}$
               ii) $5\sqrt{7} \div 10\sqrt{35}$

   [Ans   i) $6\sqrt{42}$ ii) $\frac{\sqrt{5}}{10}$]

Q7. Multiply   i) $(\sqrt{3} + \sqrt{2})(\sqrt{3} - \sqrt{2})$
               ii) $(\sqrt{5} - 2)(\sqrt{5} + \sqrt{2})$

   [Ans i) 1   ii) 1]

Q8. Divide $8\sqrt{15}$ by $2\sqrt{3}$ [Ans :- $4\sqrt{5}$]

Q9. Add $3\sqrt{2}$, $5\sqrt{2}$, $7\sqrt{2}$ [Ans :- $15\sqrt{2}$]

Q10. Subtract $3\sqrt{5}$ from $5\sqrt{125}$ [Ans: $22\sqrt{5}$]

Q11. Sim