

HAPPY HOLIDAYS

CLASS IX

HOLIDAYS HOME WORK FOR SUMMER VACATION

SUB : MATHS

Q1. DO 20 QUESTIONS OF THE CONCEPT "RATIONALISATION".

Q2. DO 10 QUESTIONS OF EACH OF THE FOLLOWING LAWS FOR REAL NUMBERS.

- $a^p \times a^q = a^{p+q}$
- $(a^p)^q = a^{pq}$
- $\frac{a^p}{a^q} = a^{p-q}$
- $a^p b^p = (ab)^p$

Q3. REPRESENT $\sqrt{5}, \sqrt{10}, \sqrt{17}, \sqrt{26}, \sqrt{2.3}$ & $\sqrt{5.3}$ ON NUMBER LINE.

Q4. EXPLAIN THE CONCEPT "ZERO OF A POLYNOMIAL" WITH THE HELP OF 20 EXAMPLES.

Q5. DO 10 QUESTIONS OF EACH OF THE FOLLOWING IDENTITY ON FACTORISATION

- $a^2 + b^2 + c^2 + 2ab + 2bc + 2ca = (a + b + c)^2$
- $a^3 + b^3 + 3ab(a + b) = (a + b)^3$
- $a^3 + b^3 = (a + b)(a^2 - ab + b^2)$
- $a^3 - b^3 = (a - b)(a^2 + ab + b^2)$
- $a^3 + b^3 + c^3 - 3abc = (a + b + c)(a^2 + b^2 + c^2 - ab - bc - ca)$
- IF $a + b + c = 0$, then $a^3 + b^3 + c^3 = 3abc$

Q6. FIND THE SQUARE ROOT OF $\sqrt{2}, \sqrt{3}, \sqrt{5}, \sqrt{2.1}$ & $\sqrt{3.5}$ UP TO 5 DECIMAL PLACE.

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- USE SEPARATE NOTE BOOK FOR HOLIDAYS HOME WORK.
 - DO HOLIDAYS HOMEWORK YOURSELF ONLY, BUT IF YOU FIND PROBLEM THEN ONLY TAKE THE HELP OF YOUR ELDERS.