

Mathematics X Chapter 1 Real Numbers

MM 25

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Time1h

- Q1. A rational number having terminating decimal expansion has denominator of the form _____ if numerator and denominator are coprime.
- Q2. An algorithm is a _____
- Q3. Differentiate between a rational and irrational number.
- Q4. A lemma is a proven _____
- Q5. Is sum of two irrational numbers always irrational? Give two examples to support your answer.
- Q6. Use Euclid's division algorithm to find the H.C.F. of 135 and 4500
- Q7. Show that any odd positive odd integer is of the form $6a+1$, $6a+3$ or $6a+5$
- Q8. Prove $2\sqrt{3} - 7$ is an irrational number.
- Q9. Without actually performing the long division, state whether the following rational number has a terminating expansion or a non-terminating repeating decimal
Expansion $\frac{15}{225}$
- Q10. Find the H.C.F. and L.C.M. of 12, 72 and 360 using prime factorization and check if product of three given numbers is equal to product of H.C.F. and L.C.M.
- Q11. Prove that $\sqrt{5}$ is an irrational number.
- Q12. Is $1.00\overline{57}$ a pure recurring decimal or mixed recurring decimals. Express it in p/q form.
- Q13. Two kids are moving on a circular path on their tricycles. Anubhav completes 1 round in 10 minutes and Aastha can complete it in 6 minutes. If they start at the same time find after how many minutes will they meet again at starting point.

Q 1 – 5 one mark each, Q 6 – 9 two marks each, Q 10 – 13 three marks each

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