

Maths Work Sheet

Class - X

Chapter:- Real Numbers

Q01 : Find the smallest number which when divided by 30, 40 and 60 leaves the remainder 7 in each case.

Q02 : The dimensions of a room are 6 m 75 cm, 4 m 50 cm and 2 m 25 cm. Find the length of the largest measuring rod which can measure the dimensions in exact number of times.

Q03 : The HCF of 2 numbers is 75 and their LCM is 1500. If one of the numbers is 300, find the other.

Q04 : Prove that $\sqrt{6}+\sqrt{5}$ is irrational.

Q05 : Can 72 and 20 respectively be the LCM and HCF of two numbers. Write down the reason.

Q06 : If a and b are two prime numbers, write their HCF and LCM.

Q07 : If p and q are two coprime numbers, write their HCF and LCM.

Q08 : Without actual division, state whether the decimal form of $\frac{539}{5^3 \times 2^2 \times 7^2}$ is terminating OR recurring.

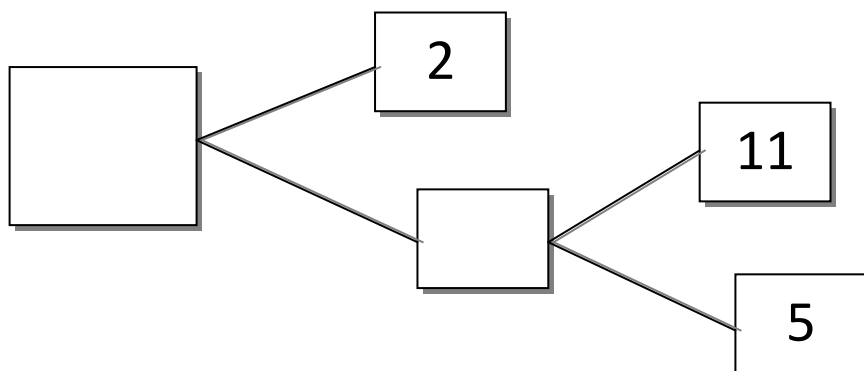
Q09 : Find the HCF and LCM of 350 and 400 and verify that $\text{HCF} \times \text{LCM} = \text{Product of the numbers}$.

Q10 : Simplify: $\frac{2\sqrt{45}+3\sqrt{20}+10\sqrt{125}}{2\sqrt{5}}$

Q11 : Write down 5 irrational numbers in radical form which are lying between 4 and 5.

Q12 : Write down 2 rational numbers lying between $\sqrt{2}$ and $\sqrt{3}$.

Q13 : Complete the missing entries in the following factor tree.



Q14 : Prove that $\sqrt{p} + \sqrt{q}$ is irrational if p and q are prime numbers.

Q15 : Find the largest number which divides 245 and 1205 leaving the remainder 5 in each case.

Q16 : Find the largest number which divides 303, 455 and 757 leaving the remainder 3, 5 and 7 respectively.

Q17 : Prove that $\sqrt{5}$ is irrational.

Q18 : Prove that $6 - 2\sqrt{5}$ is irrational.

Q19 : Find the HCF and the LCM of the following by prime factorization.

a) 360 , 756

b) $2x^4y^3z$, $32x^3y^4p^2$

Q20 : Find the HCF by Euclid's Division Algorithm.

a) 256 , 352

b) 450 , 500 , 625

Q21 : Explain why $7 \times 11 \times 13 + 13$ is a composite number.

Q22 : Show that any positive odd number is of the form $6q + 1$, $6q + 3$ or $6q + 5$, where q is an integer.

Q23 : Show that the square of any positive integer is of the form $3m$ or $3m + 1$, where m is an integer.

Q24 : Use Euclid's division lemma to show that the cube of any positive integer is of the form $9m$, $9m + 1$, $9m + 8$, where m is an integer.

Q25 : There are 3 consecutive traffic lights which turn "green" after every 36, 42 and 72 seconds. They all were at "green" at 9:00 AM. At what time will they all turn "green" simultaneously?