

INDIAN SCHOOL AL WADI AL KABIR

Class X - Mathematics (2026-27)

Worksheet – Real Numbers

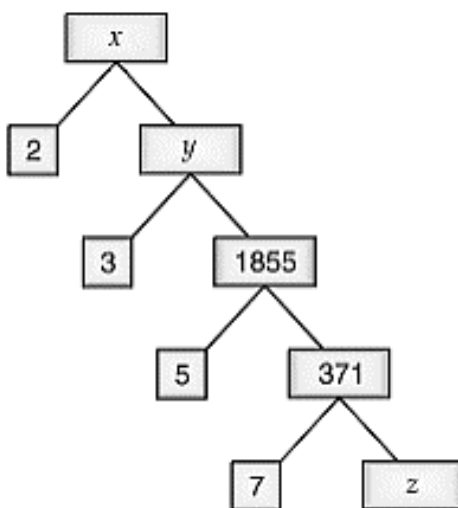
19-04-2026

Questions of 2 marks each

- Q.1.** Can two numbers have 18 as their HCF and 380 as their LCM? Give reason for your answer.
- Q.2.** Find the HCF of 456 and 120 by prime factorization method and hence find their LCM.
- Q.3.** Show that 15^n cannot end with digit 0 for any natural number 'n'.
- Q.4.** Find HCF and LCM of 404 and 96 and verify that $\text{HCF} \times \text{LCM} = \text{Product of the two given numbers}$.
- Q.5.** Explain why $2 \times 3 \times 5 + 5$ and $5 \times 7 \times 11 + 7 \times 5$ are composite numbers.

Questions of 3 marks each

- Q.6.** Aakriti decided to distribute milk in an orphanage on her birthday. The supplier brought two milk containers which contain 398 litres and 436 litres of milk. The milk is to be transferred to other containers so that 7 litres and 11 litres of milk is left in both the containers respectively. What will be the maximum capacity of the measuring drum?
- Q.7.** Find the value of x, y and z in the given factor tree.



Q.8.	On a morning walk, three persons step off together and their steps measure 40cm, 42cm and 45cm respectively. What is the minimum distance each should walk so that each can cover the same distance in complete steps?
Q.9.	A school has invited 42 Mathematics teachers, 56 Physics teachers and 70 Chemistry teachers to attend a science workshop. Find the minimum number of tables required, if the same number of teachers are to sit at a table and each table is occupied by teachers of the same subject.
Q.10.	The length, breadth and height of a room are 825cm, 675cm and 450cm respectively. Find the longest tape which can measure the three dimensions of the room exactly.
Q.11.	Ranjita, Neha and Salma start weaving sweaters at the same time for the children of an orphan home. They need 15, 18 and 20 days, respectively, to complete a sweater. After how many days will all of them start making a new sweater again? By that time how many sweaters will have been completed by them?
Questions of 5 marks each	
Q.12.	Prove that $\sqrt{3}$ is an irrational number. Hence prove that $\frac{2+\sqrt{3}}{5}$ is irrational.
Q.13.	Grow More Plantations have two rectangular fields of the same width but different lengths. They are required to plant 84 trees in the smaller field and 231 trees in the larger field. In both fields, the trees will be planted in the same number of rows but in different numbers of columns. (i) What is the maximum number of rows that can be planted in this arrangement? (ii) If the trees are planted in the number of rows obtained in (i), how many columns will each field have?
Q.14.	National Art convention got registrations from students from all parts of the country, of which 60 are interested in music, 84 are interested in dance and 108 students are interested in handicrafts. For optimum cultural exchange, organizers wish to keep them in minimum number of groups such that each group consists of students interested in the same artform and the number of students in each group is the same. Find the number of students in each group. Find the number of groups in each art form. How many rooms are required if each group will be allotted a room? (CFQ)

Case study question (4 marks)

Q.15.

Khushi wants to organize her birthday party. Being health conscious, she decided to serve only fruits on her birthday party. She bought 36 apples and 60 bananas and decided to distribute fruits equally among all.



Based on the above information, answer the following questions:

- (i) How many guests Khushi can invite at the most?
- (ii) How many apples and bananas will each guest get?
- (iii) (a) If Khushi decides to add 42 mangoes, how many guests Khushi can invite at the most?
(b) If the cost of 1 dozen of bananas is ₹ 60, the cost of 1 apple is ₹ 15 and cost of 1 mango is ₹ 20, find the total amount spent on 60 bananas, 36 apples and 42 mangoes.

ANSWERS

Q.1	No, since 18 is not a factor of 380	Q.2	HCF = 4, LCM = 13680	Q.4	4, 9696	Q.6	17 litres	Q.7	x = 11130 y = 5565 z = 53
Q.8	2520cm	Q.9	12	Q.10	75 cm	Q.11	180, 31	Q.13	(i) 21 (ii) 4, 11
Q.14	HCF = 12; 5,7,9 Total - 21	Q.15	(i) 12 (ii) 3, 5 (iii) 6 (iv) ₹1680						