

REVISION PRACTICE ASSIGNMENT (RPA)

SUBJECT-MATHEMATICS

SESSION-2020-21

CLASS-X

TOPIC:REAL NUMBERS

SECTION-A (MCQ)

{1x5=5}

- For some integer m , every even integer is of the form
(A) m (B) $m + 1$ (C) $2m$ (D) $2m + 1$
- If the HCF of 65 and 117 is expressible in the form $65m - 117$, then the value of m is
(A) 4 (B) 2
(C) 1 (D) 3
- The product of a non-zero rational and an irrational number is
(A) always irrational
(B) always rational
(C) rational or irrational
(D) one
- The least number that is divisible by all the numbers from 1 to 10 (both inclusive) is
(A) 10 (B) 100 (C) 504 (D) 2520
- $3.24636363\dots$ is:
(a) a terminating decimal number
(b) a non-terminating repeating decimal number
(c) a rational number
(d) both (b) and (c)

SECTION-B (VERY SHORT ANSWER TYPE)

{1x5=5}

- The values of the remainder r , when a positive integer a is divided by 3 are 0 and 1 only. Justify your answer.
- Explain why $3 \times 5 \times 7 + 7$ is a composite number
- Show that any positive odd integer is of the form $6m + 1$, or $6m + 3$, or $6m + 5$, where m is some integer
- The HCF of two numbers is 23 and their LCM is 1449. If one of the number is 161 find the other number
- Using Euclid Division Lemma find the HCF of 504 & 1188

11.

Application of fundamental theorem of Arithmetic

(i) $7 \times 11 \times 13 + 13$

$= 13 (\text{_____} + \text{_____})$

$= 132 \times 2 \times 3 = \text{_____}$

Is this factorisation unique. (Y/N)

So, the given expression is a _____ number

(ii) $5 \times 7 \times 13 + 5$

$= \text{_____}$

$= \text{_____}$

Is this factorisation unique. (Y/N)

So, the given expression is a _____ number

12.

Complete the missing steps.

Use Euclid's algorithm to find the HCF of 324 and 12084.

Since $12084 > 324$, by Euclid's division lemma $12084 = 324 \times 37 + 96$.Since remainder $\neq 0$, again by division lemma. $324 = 96 \times 3 + 36$.

Remainder = 36, $96 = \text{_____} \times \text{_____} + \text{_____}$

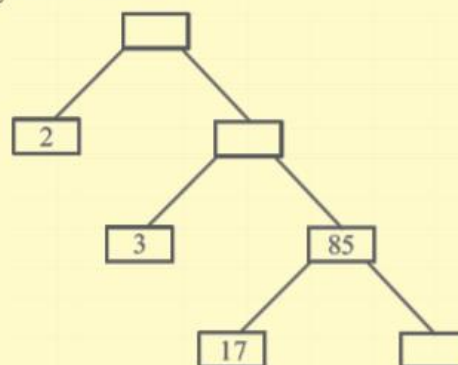
_____, $36 = \text{_____} \times \text{_____} + \text{_____}$

_____, $24 = 12 \times 2 + 0$

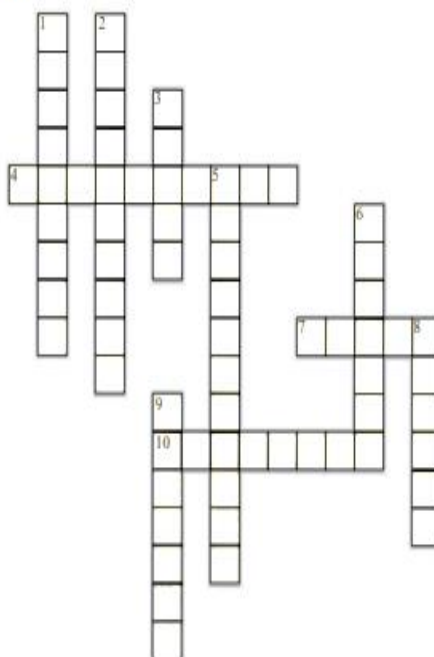
_____, HCF = _____ \times _____ + _____

13.

Complete the following factor tree.



14.

Crossword Puzzle Sheet**Across**

4. Fundamental theorem of _____ states that every composite number can be uniquely expressed as a product of primes, apart from the order of factors.
7. The _____ factorization of composite numbers is unique.
10. _____ numbers have either terminating or non-terminating repeating decimal expansion.

Down

1. _____ is a sequence of well defined steps to solve any problem.
2. Numbers having non-terminating, non-repeating decimal expansion are known as _____.
3. A proven statement used as a stepping stone towards the proof of another statement is known as _____.
5. Decimal expansion of $\frac{3}{35}$ is _____.
6. The _____ expansion of rational numbers is terminating if the denominator has 2 & 5 as its only factors.
8. _____ division algorithm is used to find the HCF of two positive numbers.
9. For any two numbers, $\text{HCF} \times \text{LCM} = \text{_____}$ of numbers.