



Laying the foundation of lifelong success

CHAPTER 1

Real Number

(Previous Years' Questions)

Assertion - Reason

Two statements are given, one labelled as Assertion (A) and the other is labelled as Reason (R). Select the correct answer to these questions from the codes (A), (B), (C) and (D) as given below. (A) (B) (C) (D)

- (A) Both Assertion (A) and Reason (R) are true and Reason (R) is the correct explanation of the Assertion (A).
- (B) Both Assertion (A) and Reason (R) are true, but Reason (R) is not the correct explanation of the Assertion (A).
- (C) Assertion (A) is true, but Reason (R) is false.
- (D) Assertion (A) is false, but Reason (R) is true.

1. Assertion (A): $\text{H.C.F.}(36m^2, 18m) = 18m$, where m is a prime number.

Reason (R) : H.C.F. of two numbers is always less than or equal to the smaller number. **(2026)**

2. Assertion (A): 4^n ends with digit 0 for some natural number n .

Reason (R) : For a number ' x ' having 2 and 5 as its prime factors, x^n always ends with digit 0 for every natural number n . **(2025)**

3. Assertion (A): Unit digit of 3^n cannot be an even number for any natural number n .

Reason (R) : 2 is not a prime factor of 3^n for any natural number n . **(2025)**

4. Assertion (A): For any two prime numbers p and q , their HCF is 1 and LCM is $p + q$.

Reason (R) : For any two natural numbers, $\text{HCF} \times \text{LCM} = \text{product of numbers}$. **(2025)**

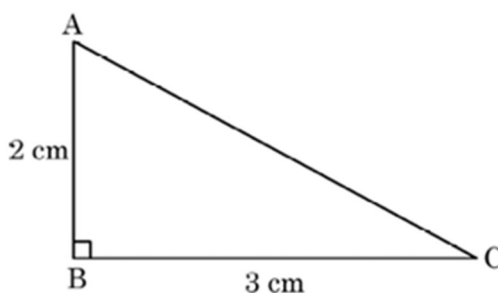
5. Assertion (A): For two prime numbers x and y ($x < y$), $\text{HCF}(x, y) = x$ and $\text{LCM}(x, y) = y$.

Reason (R) : $\text{HCF}(x, y) \leq \text{LCM}(x, y)$, where x, y are any two natural numbers. **(2025)**

6. Assertion (A): For two odd prime numbers x and y , ($x \neq y$), $\text{LCM}(2x, 4y) = 4xy$

Reason (R) : $\text{LCM}(x, y)$ is a multiple of $\text{HCF}(x, y)$. **(2025)**

7. Assertion (A): The perimeter of $\triangle ABC$ is a rational number.



Reason (R): The sum of the squares of two rational numbers is always rational. **(2023)**

8. Assertion (A): The number 5^n cannot end with the digit 0, where n is a natural number.

Reason (R): Prime factorisation of 5 has only two factors, 1 and 5.

(2023)



EDU सारथी