



1	For some integer q , every even integer is of the form (a) q (b) $q + 1$ (c) $2q$ (d) none of these
2	Euclid's division lemma state that for any positive integers a and b , there exist unique integers q and r such that $a = bq + r$ where r must satisfy (a) $1 < r < b$ (b) $0 < r \leq b$ (c) $0 \leq r < b$ (d) $0 < r < b$
3	The HCF of smallest composite number and the smallest prime number is (a) 0 (b) 1 (c) 2 (d) 3
4	Given that $HCF(1152, 1664) = 128$ the $LCM(1152, 1664)$ is (a) 14976 (b) 1664 (c) 1152 (d) none of these
5	Which one of the following rational number is a non-terminating decimal expansion: (a) $\frac{33}{50}$ (b) $\frac{66}{180}$ (c) $\frac{6}{15}$ (d) $\frac{41}{1000}$
6	If a and b are positive integers, then $HCF(a, b) \times LCM(a, b) =$ (a) $a \times b$ (b) $a + b$ (c) $a - b$ (d) a/b
7	If the HCF of two numbers is 1, then the two numbers are called (a) composite (b) relatively prime or co-prime (c) perfect (d) irrational numbers
8	The decimal expansion of $\frac{93}{1500}$ will be (a) terminating (b) non-terminating (c) non-terminating repeating (d) non-terminating non-repeating.
9	The decimal expansion of the rational number $\frac{33}{2^2 \cdot 5}$ will terminate after (a) one decimal place (b) two decimal places (c) three decimal places (d) more than 3 decimal places
10	The decimal expansion of the rational number $\frac{14587}{1250}$ will terminate after: (a) one decimal place (b) two decimal places (c) three decimal places (d) four decimal places
11	L.C.M. of two co-prime numbers is always (a) product of numbers (b) sum of numbers (c) difference of numbers (d) none

12	If two positive integers a and b are written as $a = x^3y^2$ and $b = xy^3$; x, y are prime numbers, then HCF (a, b) is (a) xy (b) xy^2 (c) x^3y^3 (d) x^2y^2
13	For some integer q , every odd integer is of the form (a) q (b) $q + 1$ (c) $2q$ (d) none of these
14	The HCF of 52 and 130 is (a) 52 (b) 130 (c) 26 (d) 13
15	Given that $\text{HCF}(306, 657) = 9$, find the $\text{LCM}(306, 657)$.
16	Prove that $\frac{2\sqrt{3}}{5}$ is an irrational number.
17	Prove that $\sqrt{3} + \sqrt{5}$ is an irrational number.
18	Prove that $5 - 2\sqrt{3}$ is an irrational number.
19	Using Euclid's division algorithm, find which of the following pairs of numbers are co-prime: (i) 231, 396 (ii) 847, 2160
20	Use Euclid's division algorithm to find the HCF of 441, 567, 693.
21	Using Euclid's division algorithm, find the largest number that divides 1251, 9377 and 15628 leaving remainders 1, 2 and 3, respectively.
22.	Using Euclid's Division Algorithm find the HCF of 9828 and 14742.
23.	Show that the number of the form $7^n, n \in \mathbb{N}$ cannot have unit digit zero.
24	If $\text{LCM}(480, 672) = 3360$, find $\text{HCF}(480, 672)$.
25	Can two numbers have 18 as their HCF and 380 as their LCM? Give reasons.