

Class 10 Real Numbers - Classroom Practice

Q114. If two positive integers p and q can be expressed as $p = 18a^2b^4$ and $q = 20a^3b^2$, where a and b are prime numbers, then $\text{LCM}(p, q)$ is:

(a) $2a^2b^2$ (b) $180a^2b^2$ (c) $12a^2b^2$ (d) $180a^3b^4$

Q115. The greatest number which divides 281 and 1249, leaving remainder 5 and 7 respectively, is:

(a) 23 (b) 276 (c) 138 (d) 69

Q116. The LCM of three numbers 28, 44, 132 is:

(a) 258 (b) 231 (c) 462 (d) 924

Q117. If the product of two co-prime numbers is 553, then their HCF is:

(a) 1 (b) 553 (c) 7 (d) 79

Q118. The ' p ' and ' q ' are natural numbers and p is the multiple of q , then what is the HCF of p and q ?

(a) pq (b) p (c) q (d) $p+q$

Q119. The ratio of HCF to LCM of the smallest composite number and the smallest prime number is:

(a) 1:2 (b) 2:1 (c) 1:1 (d) 1:3

Q120. The HCF and the LCM of 12, 21, 15 respectively are:

(a) 3, 140 (b) 12, 420 (c) 3, 420 (d) 420, 3

Q121. The HCF of 135 and 225 is:

(a) 15 (b) 75 (c) 45 (d) 5

Q122. 325 can be expressed as a product of its primes as:

(a) $5^2 \times 7$ (b) $5^2 \times 13$ (c) 5×13^2 (d) $2 \times 3^2 \times 5^2$

Q123. LCM of the smallest two-digit composite number and the smallest composite number is:

(a) 12 (b) 4 (c) 20 (d) 44

Q124. Product of HCF and LCM of 50 and 95 is:

(a) 2350 (b) 4750 (c) 5530 (d) 4900

Q125. HCF of 168 and 126 is:

(a) 21 (b) 42 (c) 14 (d) 18

Q126. Prime factorisation of 882 is:

(a) $2^3 \times 3 \times 7^3$ (b) $7^2 \times 3 \times 2^3$ (c) $2 \times 3 \times 7^4$ (d) $2^2 \times 3^2 \times 7^2$

Q127. Which of the following is a pair of co-primes?

(a) (14,35) (b) (18,25) (c) (31,93) (d) (32,62)

Q128. The smallest number by which $13/15$ should be multiplied so that its decimal expansion terminates after two decimal places is:

(a) $13/100$ (b) $13/10$ (c) $10/13$ (d) $100/13$

Q129. If $a^2 = 23/25$, then a is:

(a) rational (b) irrational (c) whole number (d) None of these

Q130. Which of these is a rational number?

(a) 3π (b) $5\sqrt{5}$ (c) 0.346666... (d) 0.345210651372849...

Q131. The fraction $7/q$ has a terminating decimal expansion. Which of these cannot be q?

(a) 8×2 (b) 8×3 (c) 8×4 (d) 8×5

Q1. If two positive integers a and b are written as $a = x^3y^2$ and $b = xy^3$, where x,y are prime numbers, then the result obtained by dividing the product by the LCM(a,b) is:

(a) xy (b) xy^2 (c) x^3y^3 (d) x^2y^2

Q2. The ratio of HCF and LCM of the least prime number and the least composite number is:

(a) 1:2 (b) 2:1 (c) 1:3 (d) 1:1

Q3. If $xy=180$ and $\text{HCF}(x,y)=3$, then $\text{LCM}(x,y)$ is:

(a) 20 (b) 60 (c) 45 (d) 90

Q4. HCF of $6^3 \times 5^4$ and $3^4 \times 5^2$ is:

(a) $3^3 \times 5^3$ (b) $3^3 \times 5^2$ (c) $3^4 \times 5^4$ (d) None

Q5. If the HCF of 52 and 91 is expressible in the form $10m+3$, then the value of m is:

(a) 4 (b) 2 (c) 1 (d) 3

Q6. If $a = x^2y$ and $b = xy^2$; x,y prime, then $\text{HCF}(a,b)$ is:

(a) xy (b) xy^2 (c) x^3y^3 (d) x^2y^2

Q7. If n is a natural number, then $25^{2n} - 9^{2n}$ is always divisible by:

(a) 16 (b) 34 (c) both 16 and 34 (d) None

Q8. Product of HCF and LCM of the smallest prime and the smallest composite number is:

(a) 2 (b) 4 (c) 6 (d) 8

Q9. The greatest number which divides both 30 and 80 leaving remainder 2 and 3 respectively is:

(a) 10 (b) 7 (c) 14 (d) 11

Q10. Which of these numbers always ends with digit 6?

(a) 4^n (b) 2^n (c) 6^n (d) 8^n

Q11. Given $\text{HCF}(90, 144) = 18$ and $\text{LCM}(90, 144) = 10 \times k$, find k :
(a) 85 (b) 90 (c) 72 (d) 56