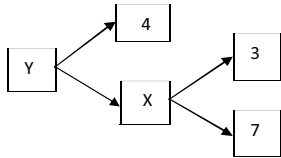


1. REAL NUMBERS

1. The prime factor of $2 \times 7 \times 11 \times 17 \times 23 + 23$ is _____
2. A Physical Education Teacher wishes to distribute 60 balls and 135 bats equally among a number of boys. The greatest number receiving the gift in this way are _____
3. The Values of X and Y in the given figure are _____



4. If the LCM of 12 and 42 is $10m+4$, then the value of 'm' is _____
5. π is _____
6. $\log_{2015} 2015 =$ _____
7. The reciprocal of two irrational numbers is _____
8. The decimal expansion of $17/18$ is _____
9. $2.54\overline{7}$ is _____
10. Decimal expansion of number $\frac{27}{2 \times 5 \times 7}$ has _____
11. The decimal expansion of $189/125$ will terminate after _____
12. If $a = 2^3 \times 3$, $b = 2 \times 3 \times 5$, $c = 3^n \times 5$ and LCM $(a, b, c) = 2^3 \times 3^2 \times 5$, then $n =$ _____
13. If n is any natural number, then $6^n - 5^n$ always ends with _____
14. If $\log_2 16 = x$ then $x =$ _____
15. The standard base of a logarithm is _____
16. If $\log_{10} 2 = 0.3010$, then $\log_{10} 8 =$ _____
17. $\log_{10} 0.01 =$ _____
18. The exponential form $\log_4 64 = 3$ is _____
19. $\log 15 =$ _____
20. The prime factorization of 216 is _____
21. HCF of 4 and 19 is _____
22. LCM of 10 and 3 is _____
23. If the HCF of two numbers is '1', then the two numbers are called _____

24. If the positive numbers a and b are written as $a = x^5y^2$, $b = x^3y^3$ where x and y are prime numbers then the $\text{HCF}(a, b) = \underline{\hspace{2cm}}$; $\text{LCM}(a, b) = \underline{\hspace{2cm}}$
25. The product of two irrational numbers is $\underline{\hspace{2cm}}$
26. $\overline{43.1234}$ is $\underline{\hspace{2cm}}$ number.
27. $\log a^p \cdot b^q = \underline{\hspace{2cm}}$
28. If $5^3 = 125$, then the logarithm form $\underline{\hspace{2cm}}$
29. $\log_7 343 = \underline{\hspace{2cm}}$

ANSWERS

- 1) 23; 2) 15; 3) $X = 21$, $Y = 84$; 4) 8;
 5) An irrational number; 6) 1; 7) Always an irrational number;
 8) 2.125; 9) A rational;
 10) non-terminating but repeating; 11) 3 places of decimal; 12) 2;
 13) 1; 14) 4; 15) 10; 16) 0.9030; 17) -2 ; 18) $4^3 = 64$; 19) $\log 3 + \log 5$; 20) $2^3 \times 3^3$; 21) 1; 22) 30; 23) Co-Primes; 24) $[x^3y^2; x^5y^3]$;
 25) Sometimes rational, Some times irrational; 26) a rational number; 27) $p \log a + q \log b$; 28) $\log_5 125 = 3$; 29) 3.