

Karnataka Board 1st PUC Maths Important Questions List

1. If $\frac{a}{b}, \frac{c}{d}, \frac{e}{f}$ are the proper fractions, then LCM is given by _____
2. Three vessels can hold 9, 15, 24 litres of water. Find the least quantity of water which can be filled by these vessels an exact number of times.
3. Find the H.C.F. of 165, 225 and 435
4. The cost of a chair is `600 and the cost of a table is `900. Find the least sum of money that a person must possess in order to purchase a whole number of chairs or tables.
5. Express each of the following rational numbers as decimals:
 (a) $\frac{3}{4}$ (b) $\frac{15}{8}$ (c) $\frac{8}{125}$
6. Without actually performing the long division state whether the following rational numbers will have a terminating decimal expansion or non-terminating repeating decimal expansion.
 (a) $\frac{17}{3125}$ (b) $\frac{13}{8}$
7. Prove that $2 + 3\sqrt{5}$ is an irrational number
8. Represent the following sets in both Roster form and Rule method:
 (a) Set of factors of 20
 (b) Set of all prime Numbers less than 10
9. Out of 250 people, 160 drink coffees, 90 drink tea, 85 drink milk, 45 drink coffee and tea, 35 drink tea and milk, 20 drink all the three. How many will drink Coffee and Milk?
10. If $A = \{5, 6, 7\}$, Find $P(A)$
11. If $(2x, x + y) = (8, 4)$. Find x and y
12. R is a relation on the set of natural numbers N standing for x is related to y . if $x = 3y$, Find R
13. Find the domain and range of the function $F(x) = \frac{x^2 - 2x + 1}{x^2 - 9x + 13}$, where $x \in N$

14. Simplify $2(3^{-2}) + \frac{1^{-3}}{3} + 3^2$

15. Prove that $2\log \frac{3}{7} + \log \frac{49}{9} = 0$

16. If $\log 5 = 0.6990$, find the number of digits in the integral part of 5^{23}

17. Find the 11th term of the A.P. 3, 5, 7, 9 - - - -

18. Imrez buys a used car for ₹1,50,000 he pays ₹1,00,000 Cash and agrees to pay the balance in annual instalments of ₹5,000 plus 8% interest on the unpaid amount. How much will the Car Cost for him?

19. If $n(U) = 700, n(A) = 200, n(B) = 300$ and $n(A \cap B) = 100$, then find $n(A' \cap B')$

20. Prove that $\frac{1}{1 + \cos A} + \frac{1}{1 - \cos A} = 2\operatorname{cosec}^2 A$