



DELHI POLICE 2025
CONSTABLE HCM AWO/TPO DRIVER

यकीन बैच

MATHS



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LCM and HCF

Part -3

LIVE
STREAMING

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$$\Rightarrow \textcircled{i} \quad \underline{6}, \underline{12}, \underline{15} = \underline{60} \quad [\underline{\text{LCM}} = \underline{\text{Ans}}]$$

$$\textcircled{ii} \quad \underbrace{6, 12, 15} = \underline{60} + 3 \quad \text{Remainder} = 3$$

$$= \underline{63} \quad \boxed{\text{LCM} + \text{शेष}}$$

$$\textcircled{iii} \quad \begin{array}{l} \textcircled{6} \\ \textcircled{12} \\ \textcircled{15} \end{array} \begin{array}{l} - \\ - \\ - \end{array} \begin{array}{l} \downarrow \\ 4 \\ 10 \\ 13 \end{array} = \begin{array}{l} 2 \\ 2 \\ 2 \end{array}$$

(LCM - Common)

$$\text{LCM} = \underline{60} - 2 = \underline{58}$$

① वह सबसे छोटी संख्या जो $\boxed{12, 25, 30}$ से पूरी-2 विभाजित होती है? $\overset{LCM}{= \boxed{300}}$

② वह सबसे छोटी संख्या जो $\underbrace{15, 25, 40}$ से विभाजित करने के बाद 7 शेष रहता है?
 $600 + 7 = \boxed{607}$

③ वह सबसे छोटी संख्या जिसे 20, 25, 30 से विभाजित करने पर कम्परा शेष $\underbrace{14, 19, 24}$ बचता हो?

20	25	30
3	5	2
15	15	15
30	30	30
15	15	15
30	30	30
15	15	15
30	30	30

5	15	25	40
3	5	5	8
15	15	15	40
30	30	30	80
15	15	15	40
30	30	30	80
15	15	15	40
30	30	30	80

$$\begin{array}{rcl}
 20 & - & 14 = 6 \\
 25 & - & 19 = 6 \\
 30 & - & 24 = 6
 \end{array}$$

$300 - 6 = \boxed{294}$

5	20	25	30
2	4	5	6
10	20	25	30
20	40	50	60
10	20	25	30
20	40	50	60
10	20	25	30
20	40	50	60

$$\Rightarrow 4 \mid \underbrace{12, 16, 20}_{3, 4, 5} = \overset{\times}{\underline{240}} \quad \overset{\approx}{480} \quad 720 \rightarrow (\text{LCM}) \text{ multiple}$$

$$\# \underbrace{12, 16, 20}_{\text{LCM } \underline{240} \times 5}$$

$$\underline{1000} \wedge \underline{1300}$$

Diagram illustrating the calculation of the Least Common Multiple (LCM) for the numbers 12, 16, and 20, and its application to a range of numbers.

The first part shows the prime factorization of 12, 16, and 20, resulting in the LCM of 240. The LCM is then multiplied by 5 to get 1200, which is circled.

The second part shows the LCM of 12, 16, and 20 (240) multiplied by 5, resulting in 1200. This value is then used to find the LCM of 1000 and 1300, which is 1300.

वह छोटी से छोटी संख्या जिसे 25, 30, 45 से पूरा-2 विभाजित किया
 जा सके और वह संख्या 1600 से 1900 के बीच हो?

8	25, 30, 45
3	5, 6, 9
8, 12, 18	

$$= \textcircled{450} \times \cancel{4} \times \cancel{4} \times \textcircled{1800}$$

+5 Remainder 2, 4, 7 = 8
 65 60-8 = 52
 350 400
 360

120

10, 12, 15 = 60

2 अंको की वह छोटी से छोटी संख्या = 60

3 " " " " " " " " " "

4 " " " " " " " " " "

6 " " " " " " " " " "

+3
 63
 120
 124
 1020
 1027

1020
 60) 1000 (17
 60
 400
 420

100020
 60) 100000 (16
 60
 400
 360
 400
 760 40
 420

6 अंको की ^{बड़े} दोटी से ^{संख्या} दोटी जो 12, 25, 60 से विभाजित करने पर 10 शेषफल दे।

12	25	60	300
12	25	60	300

12, 25, 60	300
12, 8, 12	

$$\begin{array}{r} 300 \overline{) 100000} \quad (3334 \overline{) 100200} \\ \underline{900} \qquad \qquad \underline{9900} \\ 1000 \qquad \qquad 1000 \\ \underline{900} \qquad \qquad \underline{9900} \\ 1000 \qquad \qquad 1000 \\ \underline{900} \qquad \qquad \underline{9900} \\ 1000 \qquad \qquad 1000 \\ \underline{900} \qquad \qquad \underline{9900} \\ 1000 \qquad \qquad 1000 \end{array}$$

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