

Ex-8.C

Q1: i) 8, 12 and 24

ans:- Multiples of 8 = 8, 16, 24, 32, 40, 48, 56, 64, 72, and 80.  
 Multiples of 12 = 12, 24, 36, 48, 60, 72, 84, 96, 108, and 120.  
 Multiples of 24 = 24, 48, 72, 96, 120, 144, 168, 192, 216 and 240.

L.C.M of 8, 12 and 24 is = 24.

ii) 10, 15 and 20

ans:- Multiples of 10 = 10, 20, 30, 40, 50, 60, 70, 80, 90 and 100.  
 Multiples of 15 = 15, 30, 45, 60, 75, 90, 105, .....  
 Multiples of 20 = 20, 40, 60, 80, 100, .....

L.C.M of 10, 15 and 20 is = 60

iii) 3, 6, 9 and 12

ans:- Multiples of 3 = 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, 39, 42, 45, 48, 51, 54, 57, 60, 63, 66, 69, 72, 75, 78, 81, 84, 87, 90, 93, 96, 99, 102, 105, 108, 111, 114, 117, 120, 123, 126, 129, 132, 135, 138, 141, 144, 147, 150, 153, 156, 159, 162, 165, 168, 171, 174, 177, 180, 183, 186, 189, 192, 195, 198, 201, 204, 207, 210, 213, 216, 219, 222, 225, 228, 231, 234, 237, 240, 243, 246, 249, 252, 255, 258, 261, 264, 267, 270, 273, 276, 279, 282, 285, 288, 291, 294, 297, 300, 303, 306, 309, 312, 315, 318, 321, 324, 327, 330, 333, 336, 339, 342, 345, 348, 351, 354, 357, 360, 363, 366, 369, 372, 375, 378, 381, 384, 387, 390, 393, 396, 399, 402, 405, 408, 411, 414, 417, 420, 423, 426, 429, 432, 435, 438, 441, 444, 447, 450, 453, 456, 459, 462, 465, 468, 471, 474, 477, 480, 483, 486, 489, 492, 495, 498, 501, 504, 507, 510, 513, 516, 519, 522, 525, 528, 531, 534, 537, 540, 543, 546, 549, 552, 555, 558, 561, 564, 567, 570, 573, 576, 579, 582, 585, 588, 591, 594, 597, 600, 603, 606, 609, 612, 615, 618, 621, 624, 627, 630, 633, 636, 639, 642, 645, 648, 651, 654, 657, 660, 663, 666, 669, 672, 675, 678, 681, 684, 687, 690, 693, 696, 699, 702, 705, 708, 711, 714, 717, 720, 723, 726, 729, 732, 735, 738, 741, 744, 747, 750, 753, 756, 759, 762, 765, 768, 771, 774, 777, 780, 783, 786, 789, 792, 795, 798, 801, 804, 807, 810, 813, 816, 819, 822, 825, 828, 831, 834, 837, 840, 843, 846, 849, 852, 855, 858, 861, 864, 867, 870, 873, 876, 879, 882, 885, 888, 891, 894, 897, 900, 903, 906, 909, 912, 915, 918, 921, 924, 927, 930, 933, 936, 939, 942, 945, 948, 951, 954, 957, 960, 963, 966, 969, 972, 975, 978, 981, 984, 987, 990, 993, 996, 999, 1000.

L.C.M of 3, 6, 9 and 12 is = 36.

Q2: L.C.M

i) 18, 24, 96

ans:-

2   18	2   24	2   96	
3   9	2   12	2   48	18 - 3 x 3 x 2
3	2   6	2   24	24 - 3 x 2 x 2 x 2
	3	2   12	96 - 3 x 2 x 2 x 2 x 2 x 2
		2   6	
		2   3	

L.C.M = 3 x 3 x 2 x 2 x 2 x 2 x 2 = 288

ii) 100, 150, 200

ans: -

2   100	2   150	2   200
2   50	3   75	2   100
5   25	5   25	2   50
5	5	5   25
		5

$$100 = 2 \times 2 \times 5 \times 5$$

$$150 = 2 \times 3 \times 5 \times 5$$

$$200 = 2 \times 2 \times 5 \times 5 \times 2$$

~~Q~~ L.C.M =  $2 \times 2 \times 2 \times 3 \times 5 \times 5 = 600$

iii) 14, 21, 98

ans: -

2   14	3   21	2   98
7   7	7   7	7   49
1	1	7   7
		1

$$14 = 2 \times 7$$

$$21 = 3 \times 7$$

$$98 = 2 \times 7 \times 7$$

L.C.M =  $2 \times 3 \times 7 \times 7 = 294$

iv) 22, 33, 121

ans: -

2   22	3   33	11   121
11   11	11   11	11   11
1	1	1

$$22 = 2 \times 11$$

$$33 = 3 \times 11$$

$$121 = 11 \times 11$$

L.C.M =  $2 \times 3 \times 11 \times 11 = 726$

v) 34, 51, 85

ans: -

2   34	3   51	5   85
17   17	17   17	17   17
1	1	1

$$34 = 2 \times 17$$

$$51 = 3 \times 17$$

$$85 = 5 \times 17$$

L.C.M =  $2 \times 3 \times 5 \times 17 = 510$



A3. H.C.F = 50  
L.C.M = 300  
One of the no. is = 150

= L.C.M X H.C.F = Product of 2 numbers  
= 300 X 50 = 150 X ?

~~The other no. is = 50 X 300~~  
Second no. = 300 X 50 ÷ 150

$$\begin{array}{r}
 = 300 \\
 \times 50 \\
 \hline
 000 \\
 + 15000 \\
 \hline
 15000
 \end{array}$$

Another no. is = 15,000 ÷ 150

$$\begin{array}{r}
 100 \\
 150 \overline{) 15000} \\
 \underline{- 150} \downarrow \\
 0000 \\
 \underline{- 0} \downarrow \\
 00 \\
 \underline{- 0} \\
 0 \\
 \hline
 \times
 \end{array}$$

The another no. is = 100

A4. The product of 2 no. = 432  
L.C.M = 72  
H.C.F X L.C.M = Product of 2 numbers  
= H.C.F = 432 ÷ 72

$$= \overset{6}{72} \overline{) 432}$$

$$- 432$$


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$$0$$

H.C.F = 6

AS: Product of 2 no. = 19,200  
H.C.F = 40

H.C.F x L.C.M = Product of 2 numbers

L.C.M =  $19,200 \div 40$

$$= \overset{480}{40} \overline{) 19,200}$$

$$- 16000$$


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$$0320$$

$$- 3200$$


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$$0$$

L.C.M = 480

A6.	3	12, 15, 18, 24, 36
	2	4, 5, 6, 8, 12
	3	2, 5, 3, 4, 6
	2	2, 5, 1, 4, 2
		1, 5, 1, 2, 1

L.C.M =  $2 \times 2 \times 2 \times 3 \times 3 \times 5 = 360$

The smallest no. which when divided by 12, 15, 18, 24, 36 is 360

A7.

2	12, 18, 24, 32, 40
2	6, 9, 12, 16, 20
3	3, 9, 6, 8, 10
2	1, 3, 2, 8, 10
	1, 3, 1, 4, 5

L.C.M =  $2 \times 2 \times 2 \times 3 \times 3 \times 4 \times 5 = 1440$

= The no. is  $1440 - 1 = 1439$

A8.

2	18, 27, 32, 36
2	9, 27, 16, 18
3	9, 27, 8, 9
3	3, 9, 8, 3
	1, 3, 8, 1

L.C.M =  $2 \times 2 \times 3 \times 3 \times 3 \times 8 = 864$

= The no. is  $864 + 3 = 867$