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Math Exercise-8(c)

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Page

1. i) 8 = 8, 16, (24) ....
12 = 12, (24), 36 ....
24 = (24), 48, 72 ....
L.C.M. = 24

ii) 10 = 10, 20, 30, 40, 50, (60) ....
15 = 15, 30, 45, (60), 75, 90 ....
20 = 20, 40, (60), 80, 100, 120 ....
L.C.M. = 60

iii) 3 = 3, 6, 9, 12 .... (36), 39 ....
6 = 6, 12, 18, 24, 30, (36) ....
9 = 9, 18, 27, (36), 45, 54 ....
12 = 12, 24, (36), 48, 60, 72 ....
~~L.C.M. = 36~~ LCM = 36

2. ii) $18 = 2 \times 3 \times 3$

$= 2^1 \times 3^2$

$24 = 2 \times 2 \times 2 \times 3$

$= 2^3 \times 3^1$

$96 = 2 \times 2 \times 2 \times 3 \times 3$

$2^3 \times 3^2$

L.C.M $= 2^3 \times 3^2$

$= 2 \times 2 \times 2 \times 3 \times 3 \times 2 \times 2$

$= 288$

iii) 100, 150 and 200

2	100, 150, 200
2	50, 75, 100
25	25, 75, 50
	1, 3, 2

L.C.M $= 2 \times 2 \times 2 \times 3 \times 25$

$= 600$

iii) 2 | 14, 21, 98

7 | 7, 21, 49

1, 3, 7

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

$= 294$

iv) 22, 121 and 33

2, 11, 3

L.C.M = 11 x 2 x 11 x 3

= 726

(b)

i) 17 | 34, 85, 51

2, 5, 3

L.C.M = 17 x 2 x 5 x 3

= 510

3. We know,

Product of two numbers = H.C.F. x L.

150 x another number = 50 x 300

∴ Another number = $\frac{50 \times 300}{150}$

∴ Another number = $\frac{50 \times 300}{150} = 100$

4. The product of H.C.F. and L.C.M. = Their produ

L.C.M. = 72

H.C.F. = 432 ÷ 72

= 6

5. The product of H.C.F and L.C.M = ~~1152~~ 19,200

H.C.F. = 40

L.C.M = 19,200 ÷ 40

= 480

6)

2	12, 15, 18, 24, 36
2	6, 15, 9, 12, 18
3	3, 15, 9, 6, 9
3	1, 5, 3, 2, 3
	1, 5, 1, 2, 1

L.C.M. = 2 × 2 × 3 × 3 × 1 × 5

= 360

7) L.C.M of

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

L.C.M = 2×2×2×3×3×4×5
= 1440 - 1
= 1339 + 1
= 1440

8) 18, 36, 32 and 27

L.C.M. of 18, 36, 32, 27

L.C.M. = 864.

Required no. = 864 + 3 = 867.