Playing with Numbers

Solution-01:-

(i) prime number

(ii) composite number

(iii) prime; composite

(iv) 2.

(v) 3

(vi) 4

(vii) 9

(viii) odd numbers.

Solution-02:-

(i) False

(ii) True

(iii) True

(iv) True

(v) False

(vi) False

(vii) False

(viii) False

(ix) True

(x) False

(xi) True.

Solution-03:-

(i) factors for the natural number 68 are

1, 2, 4, 17, 34, 68

(ii) factors for the natural numbers 27 are

1, 3, 9 and 27.

(iii) factors for the natural numbers 210 are

1, 2, 3, 5, 6, 7, 10, 14, 15, 21, 30, 35, 42, 70, 105, 210.

Solution-04:-

(i) first six multiples of the natural number 3 are

3, 6, 9, 12, 15, 18.

(ii) first six multiples of the natural number 5 are

5, 10, 15, 20, 25, 30.

(iii) first six multiples of the natural numbers 12 are

12, 24, 36, 48, 60, 72.

Solution-05:-

(i) 15 ⟷ (b) Factor of 30 (15, 30)

(ii) 36 ⟷ (e) Multiple of 9 (9, 18, 27, 36)

(iii) 16 ⟷ (a) Multiple of 8. (8, 16, 24)

(iv) 20 ⟷ (f) Factor of 20. (20, 40, 60, ...)

(v) 25 ⟷ (d) Factor of 50. (25, 50, 75, 100, ...)

(vi) 210. ⟷ (c) Multiple of 70. (70, 140, 210, 280....)

Solution-06:-

(i) Factors of 20 → 1, 2, 4, 5, 10, 20

Factors of 28 → 1, 2, 4, 7, 14, 28

common factors → 1, 2, 4.

(ii) Factors of 35 → 1, 5, 7, 35

Factors of 50 → 1, 2, 5, 10, 25, 50.

common factors → 1, 5.

(iii) Factors of 56 → 1, 2, 4, 7, 8, 14, 28, 56.
Factors of 120 → 1, 2, 3, 4, 6, 8, 15, 20, 30, 40, 60, 120

common factors → 1, 2, 4, 8.

Solution-07:-

(i) Factors of 4 → 1, 2, 4.
Factors of 8 → 1, 2, 4, 8
Factors of 12 → 1, 2, 3, 4, 6, 12

common Factors → 1, 2, 4.

(ii) Factors of 10 → 1, 2, 5, 10
Factors of 30 → 1, 2, 3, 10, 15, 30, 5, 6
Factors of 45 → 1, 3, 5, 9, 15, 45.

common factors → 1, 5.

solution-08:-

common multiples of 3 and 4 less than 100...?

multiples of 3 → 3, 6, 12, 9, 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.

Multiples of 4 → 4, 8, 12, 16, 20, 24, 28, 32, 36, 40, 44, 48, 52, 56, 60, 64, 68, 72, 76, 80, 84, 88, 92, 96, 1

common multiples of 3 and 4 are.

12, 24, 36, 48, 60, 72, 84, 96.

Solution -09:-

(i) The odd numbers between 36 and 53 are
37, 39, 41, 43, 45, 47, 49, 51.

(ii) The ~~odd~~ even numbers between 232 and 251 are

234, 236, 238, 240, 242, 244, 246, 248, 250.

Solution -10:-

(i) four consecutive odd numbers succeeding 79 are
81, 83, 85, 87.

(ii) three consecutive even numbers preceding 124 are
118, 120, 122.

Solution -11:-

greatest prime number between 1 and 15 is 13.

[∵ prime numbers between 1 and 15 are 2, 3, 5, 7, 11, 13]

Solution -12:-

(i) factors of 29 $\rightarrow$ 1, 29.
29 is a prime number.

(ii) factors of 57 $\rightarrow$ 1, 3, 19, 57.
57 is not a prime number

(iii) factors of 43 $\rightarrow$ 1, 43.
43 is a prime number.

(iv) factors of 61 $\longrightarrow$ 1, ~~3~~, 61.

61 is a prime number.

Solution -13 :-

(i) we shall find the common factors of 12 and 35.

The factors of 12 are 1, 2, 3, 4, 6, 12.

The factors of 35 are 1, 5, 7, 35.

we note that 1 is the only common factor of 12 and 35.

∴ Therefore, 12 and 35 are co-prime numbers.

(ii) we shall find the common factors of 15 and 37.

The factors of 15 are 1, 3, 5, 15

The factors of 37 are 1, 37.

we note that 1 is the only common factor of 15 and 37.

∴ Therefore, 15 and 37 are co-prime numbers.

(iii) we shall find tha common factors of ~~15~~ 32 and 27.

The factors of 27 are 1, 3, 9, 27

The factors of 32 are 1, 2, 4, 8, 16, 32.

we note that 1 is the only common factor of 27 and 32.

∴ Therefore, 27 and 32 are co-prime numbers.

(iv) we shall find the common factor of 17 and 85

The factors of 17 → 1, 17

The factors of 85 → 1, 17, 5, 85.

we note that 1, 17 are common factors so 17 & 85 are not co-prime numbers.

(v) factors of 515 → 1, 5, 53, 515.

factors of 516 → 1, 2, 3, 4, 6, 12, 24, 18, 36, 48, 72, 96, ..., 516.

we note that 1 is the only common factors of 515 and 516.

Therefore, 515 and 516 are co-primes.

(vi) factors of 215 → 1, 5, ...

factors of 415 → 1, 5, ...

we note that 1, 5 are common factors in both so 215 & 415 are not co-prime numbers.

Solution-14:-

Note that this could be one of the ways. There can be other ways also.

(i) $24 = 5 + 19$

(ii) $36 = 7 + 29$

(iii) $84 = 17 + 67$

(iv) $98 = 19 + 79$.

Solution-15:-

Note that this could be one of the ways. there can be other ways also.

(i) $24 = 11 + 13$

(ii) $36 = 17 + 19$

(iii) $84 = 41 + 43$.

(iv) $120 = 59 + 61$

Solution-16:-

Note that this could be one of the ways. There can be other ways also.

(i) $21 = 3 + 7 + 11$.

(ii) $35 = 5 + 11 + 19$.

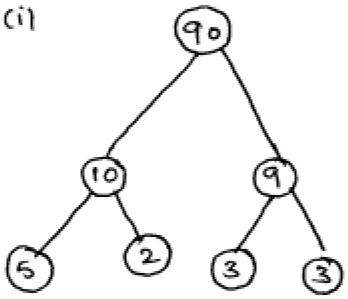
(iii) $49 = 7 + 11 + 31$

(iv) $63 = 7 + 13 + 43$.

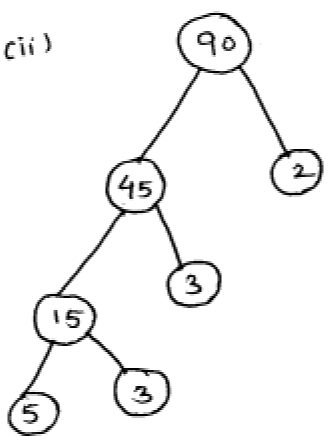
Exercise - 4.3.

Solution - 01:-

(i)



(ii)



Solution - 02:-

(i) 72

We find the prime factorisation of the given numbers by division method.

2	72	Prime 2 is a factor of 72
2	36	again 2 is a factor of 36
2	18	again 2 is a factor of 18
3	9	Prime 3 is a factor of 18.
	3	→ Stop here 3 is a Prime.

$\therefore 72 = 2 \times 2 \times 3 \times 3 \times 3$.

(ii) 172

2	172
2	86
	43

prime 2 is a factor of 172
again 2 is a factor of 86
→ stop here as 43 is prime

$\therefore 172 = 2 \times 2 \times 43.$

(iii) 450

2	450
5	225
5	45
3	9
	3.

→ stop here 3 is a prime number.

$\therefore 450 = 2 \times 5 \times 5 \times 3 \times 3.$

(iv) 980.

2	980
2	490
5	245
7	49
	7

→ stop here 7 is a prime number

$\therefore 980 = 2 \times 2 \times 5 \times 7 \times 7.$

(v) 8712 .

2	8712
2	4356
2	2178
3	1089
3	363
11	121
	11

$\therefore 8712 = 11 \times 11 \times 3 \times 3 \times 2 \times 2 \times 2.$

(VI) 13500

$$\begin{array}{r|l} 2 & 13500 \\ \hline 2 & 6750 \\ \hline 5\cancel{2} & 3375 \\ \hline 5 & 675 \\ \hline 5 & 135 \\ \hline 3 & 27 \\ \hline 3 & 9 \\ \hline & 3 \end{array}$$

$\therefore 13500 = 2 \times 2 \times 5 \times 5 \times 5 \times 3 \times 3 \times 3.$

Solution - 03:-

The smallest 3 digit number 100, The greatest 3 - digit number 999.

we find the prime factorisation of 100 by division method

2	100	→ prime 2 is a factor of 100
2	50	→ " of 50
5	25	Prime 5 is a factor of 25
	5	→ stop here 5 is a prime number

$\therefore 100 = 2 \times 2 \times 5 \times 5.$

we find the prime factorisation of 999 by division method.

3	999	→ prime 3 is a factor of 999
3	333	" 333
	111	→ stop here 111 is a prime number

$\therefore 999 = 3 \times 3 \times 111.$

Solution-04:-

The smallest 5-digit number is 10000.

We find the prime factorisation of 10000 by division method.

2	10000
2	5000
2	2500
2	1250
5	625
5	125
5	25
	5

$\rightarrow$ stop here as 5 is prime.

$\therefore 10000 = 2 \times 2 \times 2 \times 2 \times 5 \times 5 \times 5 \times 5.$

Solution-05:-

Smallest number having four different prime factors is the product of first four prime numbers

i.e $2 \times 3 \times 5 \times 7 = 6 \times 35$

$= 210.$

$\therefore$ Smallest number $= 210.$

Exercise- 4.4

Solution-01

(i) 28, 36.

for prime factorisation of given numbers, we have

$$\begin{array}{r|l} 2 & 28 \\ \hline 2 & 14 \\ \hline & 7. \end{array} \qquad \begin{array}{r|l} 2 & 36 \\ \hline 2 & 18 \\ \hline 3 & 9 \\ \hline & 3. \end{array}$$

$28 = 2 \times 2 \times 7$

$36 = 2 \times 2 \times 3 \times 3.$

Notice that 2 occurs as a common prime factor atleast 2 times.

$\therefore$ H.C.F of 28 and 36 is $= 2 \times 2$

$= 4.$

(ii) for prime factorisation of given numbers, we have

$$\begin{array}{r|l} 2 & 54 \\ \hline 3 & 27 \\ \hline 3 & 9 \\ \hline & 3 \end{array} \qquad \begin{array}{r|l} 2 & 72 \\ \hline 2 & 36 \\ \hline 2 & 18 \\ \hline 3 & 9 \\ \hline & 3 \end{array} \qquad \begin{array}{r|l} 2 & 90 \\ \hline 5 & 45 \\ \hline 3 & 9 \\ \hline & 3. \end{array}$$

$54 = 2 \times 3 \times 3 \times 3$

$72 = 2 \times 2 \times 2 \times 3 \times 3$

$90 = 2 \times 3 \times 3 \times 5.$

we notice that 2 occurs as common prime factor at least one time and 3 as 2 times

$\therefore$ H.C.F $= 2 \times 3 \times 3$

$= 18.$

$\therefore$ 18 is H.C.F of 54, 72 and 90

(iii) For prime factorisation of given number, we have

$$\begin{array}{r|l} 5 & 105 \\ \hline 3 & 21 \\ \hline & 7 \end{array} \qquad \begin{array}{r|l} 2 & 140 \\ \hline 2 & 70 \\ \hline 5 & 35 \\ \hline & 7 \end{array} \qquad \begin{array}{r|l} 5 & 175 \\ \hline 5 & 35 \\ \hline & 7. \end{array}$$

we notice that 5 and 7 occurs atleast once as prime factor in all the three given numbers

$\therefore$ H.C.F of 105, 140 and 175 is $5 \times 7 = 35$.

Solution-02:-

(i) 198) 429 (2 — Divide the Larger number by Smaller number

396

33) 198 (6 — Divide the first divisor by remainder

198

$\cancel{0) 32 (5}$ (Last divisor)

$\cancel{30}$

$\cancel{2) 6 (3}$

$\cancel{6}$

0.

$\therefore$ H.C.F of 198 and 429 is 33.

(ii) Let us find that H.C.F of 20, 64 and 104.

20) 64 (3

60

4) 20 (5

20

0.

4) 104 (26

104

0.

$\therefore$ H.C.F of 20, 64 and 104 is 4.

(iii) Let us find the H.C.F of 120, 144 and 204.

$$
\begin{array}{l}
120)\,144\,(1 \\
\quad\;\; 120 \\
\quad\;\; \overline{24)\,120\,(5} \\
\qquad\quad\; 120 \\
\qquad\quad\; \overline{(0)}.
\end{array}
$$

$$
\begin{array}{l}
24)\,204\,(8 \\
\quad\;\; 192 \\
\quad\;\; \overline{12)\,24\,(2} \\
\qquad\quad\; 24 \\
\qquad\quad\; \overline{(0)}.
\end{array}
$$

∴ H.C.F of 120, 144 and 204

Solution-03 :-

(i) 1

(ii) 1

(iii) 2.

Solution-04 :-

When 257 is divided by the required number, 5 is left as a remainder. So 257 − 5 i.e 252 is exactly divisible by that number.

Similarly 329 − 5 = 324. is exactly divisible by that number. Therefore, 252 and 324 are both divisible by that number. Thus, the required number is H.C.F of 252 and 324

$$
\begin{array}{l}
252)\,324\,(1 \\
\quad\;\; 252 \\
\quad\;\; \overline{72)\,252\,(3} \\
\qquad\quad\; 216 \\
\qquad\quad\; \overline{36)\,72\,(2} \\
\qquad\qquad\; 72 \\
\qquad\qquad\; \overline{0}
\end{array}
$$

Hence, the required number - 36.

Solution -05:-

when we 623 is divided by a required number. 3 is left as a ~~required number~~ remainder. So 623 - 3 i.e 620 is exactly divisible by that number

Similarly $729 - 9 = 720$.

$841 - 1 = 840$.

620) 720 (1
620
100) 620 (6
600
20) 100 (5
100
0

20) 840 (42
840
0

$\therefore$ H.C.F of given numbers = 20.

Solution - 06:-

Rice bag weights 69 kg and 75 kg.

divide greater number by smaller number

69) 75 (1
69
6) 69 (11
66
3) 6 (2
6
0.

$\therefore$ 3kg of weight can measure in each exact number times.

Solution-07:-

capacity of tanker 1 = 403 Litre.

capacity of tanker 2 = 434 Litre

capacity of tanker 3 = 465 Litre.

The required container that can be measure the diesel of three containers exact number of times is H.C.F of 403, 434 and 465.

$$\begin{array}{r} 403\,)\,434\,(\,1 \\ 403 \\ \hline 31\,)\,403\,(\,13 \\ 403 \\ \hline 0 \end{array}$$

$$\begin{array}{r} 31\,)\,465\,(\,15 \\ 465 \\ \hline 0 \end{array}$$

∴ 31 Litre container can be used to measure capacity.

solution-01:- (division method)

(i) 28, 98.

2	28, 98
7	14, 49
7	2, 7
	2, 1.

prime factorisation method

$28 = 2 \times 2 \times 7$

$98 = \cancel{2 \times 2 \times} 2 \times 7 \times 7$

$\therefore$ L.C.M $= 2 \times 7 \times 7 \times 2 = 196$.

$\therefore$ LCM of 28 and 98 $= 2 \times 7 \times 7 \times 2$

$= 196$

(ii) 36, 40, 126

4	36, 40, 126
2	9, 10, 126
3	9, 5, 63
3	3, 5, 21
	1, 5, 7

L.C.M $= 4 \times 2 \times 3 \times 3 \times 5 \times 7$

$= 2520$

(iii) 108, 135, 162

2	108, 135, 162
9	54, 135, 81
3	6, 15, 9
	2, 5, 3

$\therefore$ L.C.M $= 2 \times 9 \times 3 \times 2 \times 5 \times 3$

$= 1620$

(iv) 24, 28, 196

4	24, 28, 196
7	6, 7, 49
	6, 1, 7.

$\therefore$ L.C.M $= 4 \times 7 \times 6 \times 7$

$= 1176$.

Solution -02 :-

(i). LCM of 480 and 672.

2	480, 672
2	240, 336
2	120, 168
2	60, 84
2	30, 42
3	15, 21
	5, 7.

$\therefore$ L.C.M $= 2 \times 2 \times 2 \times 2 \times 2 \times 3 \times 5 \times 7$

$= 3360$.

(ii) LCM of 6, 8 and 45.

2	6, 8, 45
3	3, 4, 45
3	1, 4, 15
	1, 4, 5.

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

$= 360$.

(iii) 24, 40, 84

2	24, 40, 84
2	12, 20, 42
3	6, 10, 21
2	2, 10, 7
	1, 5, 7.

$\therefore$ L.C.M $= 2 \times 2 \times 3 \times 2 \times 1 \times 5 \times 7$

$= 840$

(iv).

2	20, 36, 63, 77
2	10, 18, 63, 77
7	5, 9, 63, 77
9	5, 9, 9, 11
	5, 1, 1, 11.

$\therefore$ L.C.M $= 2 \times 2 \times 7 \times 9 \times 5 \times 1 \times 1 \times 11$

$= 13860$.

Solution-03:-

First we find the least number which is exactly divisible by 15, 35 and 48. For this, we find L.C.M of 15, 35 and 48.

5	15, 35, 48
3	3, 7, 48
	1, 7, 16.

$\therefore$ L.C.M of 15, 35 and 48 $= 5 \times 3 \times 7 \times 16$

$= 1680$.

Thus the number 1680 is the L.C.M which is divisible by 15, 35 and 48 i.e 1680 is the least number which when divided by the given numbers will add the number 15 in each case. But we have to added 15 in the case.

There fore, the required number $= 1680 - 15$

$= 1665$.

Solution -04:-

First we find the least number which is exactly divisible by 6, 15 and 18. For this, we find L.C.M of 6, 15 and 18

$$\begin{array}{r|l} 2 & 6, 15, 18 \\ \hline 3 & 3, 15, 9 \\ \hline & 1, 5, 3 \end{array}$$

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

$= 90$.

Thus, 90 is the least number which is exactly divisible by 6, 15 and 18 i.e. 90 is the least number which when divided by the given numbers will leave the remainder 5 in each case But we need the least number which leaves the remainder 5 in each case.

Therefore, the required number $= 90 + 5 = 95$.

Solution -05:-

First we find the least number, which is exactly divisible by 24, 36, 45 and 54 for this, we find.

L.C.M of 24, 36, 45 and 54.

$$\begin{array}{r|l} 2 & 24, 36, 45, 54 \\ \hline 2 & 12, 18, 45, 27 \\ \hline 3 & 6, 9, 45, 27 \\ \hline 3 & 2, 3, 15, 9 \\ \hline 3 & 2, 3, 5, 3 \\ \hline & 2, 1, 5, 1. \end{array}$$

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

$= 1080$.

Thus, 1080 is the least number which is exactly divisible by 24, 36, 45 and 54 i.e 1080 is the least number which when divided by the given numbers will leave the remainder 3 in each case. But we need the last number which leaves the remainder 3 in each case.

Therefore, the required number $= 1080 + 3$

$= 1083.$

Solution-06:-

First, we find the L.C.M 8, 20 and 24.

$$\begin{array}{r|l} 4 & 8,\ 20,\ 24 \\ \hline 2 & 2,\ 5,\ 6 \\ \hline & 1,\ 5,\ 3 \end{array}$$

$\therefore$ L.C.M of given numbers $= 4 \times 2 \times 5 \times 3$

$= 120.$

greatest number of 3-digits is 999.

We divide 999 by 120 and find the remainder

According to given condition, we need a greatest 3-digit number which is divisible by 120.

$\therefore$ The required number $= 999 - 39$

$= 960.$

$$120)\ 999\ (8$$
$$\underline{960}$$
$$39$$

Solution -07:-

First, we find the L.C.M of 32, 36 and 48

2	32, 36, 48
2	16, 18, 24
2	8, 9, 12
3	4, 9, 6
2	4, 3, 2
	2, 3, 1.

$\therefore$ L.C.M of 32, 36 and 48 $= 2 \times 2 \times 2 \times 3 \times 2 \times 2 \times 3$
$= 288$.

smallest number of 4-digits 1000.

We divide 1000 by 288 and find the remainder

According to given condition, we need a smallest 4-digit number which is exactly divisible by 288.

$$288)\,1000\,(3$$
$$\underline{864}$$
$$136.$$

$\therefore$ The required number $= 1000 - 136 = 864$

smallest number $= 864 + 288 = 1152$

Solution-08:-

First, we find the L.C.M of 8, 12 and 20.

2	8, 12, 20
2	4, 6, 10
	2, 3, 5.

$\therefore$ L.C.M of 8, 12 and 20 $= 2 \times 2 \times 2 \times 3 \times 5$
$= 120$.

Smallest number

greatest number of 4-digits. is 9999.

We divide 9999 by 120 and find the remainder

$$
\begin{array}{r}
120)\ 9999\ (83 \\
\underline{960} \\
399 \\
\underline{360} \\
39.
\end{array}
$$

According to given condition. we need a greatest 4-digit number which is divisible by 120.

$\therefore$ The required number $= 9999 - 39$

$= 9960.$

Solution- 09:-

First we find the L.CM of 32, 36 and 45.

$$
\begin{array}{r|l}
4 & 32, 36, 45 \\ \hline
4 & 8, 9, 45 \\ \hline
3 & 2, 9, 45 \\ \hline
3 & 2, 3, 15 \\ \hline
 & 2, 1, 5.
\end{array}
$$

$\therefore$ L.C.M of 32, 36 and 45 $= 4 \times 4 \times 3 \times 3 \times 2 \times 5$

$= 1440.$

Greatest number of 5-digits $= 99999.$

least number of 5-digits $= 10000$

$$
\begin{array}{r}
1440)\ 10000\ (6 \\
8640 \\ \hline
1360
\end{array}
$$

$\therefore$ The required number $= 10000 - 1360 = 8640.$

Least number $= 8640 + 1440 = 10080.$

Solution -10:-

The distance covered by each of them is required to be the same as well as minimum. The required minimum distance each should walk would be L.C.M of the measure of the steps i.e 63 cm, 70 cm and 77 cm

So we find the L.C.M of 63, 70 and 77

$$\begin{array}{r|l} 7 & 63,\ 70,\ 77 \\ \hline & 9,\ 10,\ 11 \end{array}$$

$\therefore$ L.C.M of 63, 70 and 77 $= 7 \times 9 \times 10 \times 11$

$= 6930.$

$\therefore$ The required minimum distance $= 6930$ cm

$= 69$ m 30 cm

Solution-11:-

GIT.

Traffic signals lights at three different road change after 48 seconds, 72 seconds and 108 seconds respectively.

L.C.M of 48 s, 72 s, 108 s

$$\begin{array}{r|l} 12 & 48,\ 72,\ 108 \\ \hline 2 & 4,\ 6,\ 9 \\ \hline 3 & 2,\ 3,\ 9 \\ \hline & 2,\ 1,\ 3. \end{array}$$

$\therefore$ L.C.M of 48, 72, 108 $= 12 \times 2 \times 3 \times 2 \times 3$

$= 432$ seconds.

7 minutes 12 seconds Past 7 A.M.

Solution-12:-

L.C.M of two natural numbers $= \dfrac{\text{their product}}{\text{their H.C.F}}$

$= \dfrac{\overset{336}{\cancel{4032}}}{\cancel{12}}$

$= 336.$

$\therefore$ L.C.M of two numbers $\rightarrow$ 336.

Solution-13:-

H.C.F = 9

L.C.M = 270.

one of the number = 45.

$L.C.M \times H.C.F = 45 \times 'x'$

$x = \dfrac{9 \times \overset{6}{\cancel{270}}}{\cancel{45}}$

$x = 54.$

required number = 54.

Solution-14:

we use division method to find the H.C.F of 180 and 336.

$$
\begin{array}{l}
180)\,336\,(1 \\
\quad\;\; \underline{180} \\
\quad\;\; 156)\,180\,(1 \\
\qquad\qquad \underline{156} \\
\qquad\qquad 24)\,156\,(6 \\
\qquad\qquad\quad\;\; \underline{144} \\
\qquad\qquad\quad\;\; 12)\,24\,(2 \\
\qquad\qquad\qquad\quad \underline{24} \\
\qquad\qquad\qquad\quad 0.
\end{array}
$$

$\therefore$ H.CF = 12.

$\therefore$ L.C.M × H.C.F = 180 × 336

$$L.C.M = \frac{\overset{15}{\cancel{180}} \times 336}{\cancel{12}}$$

$$= 5040.$$

Solution-15:-

$$\begin{array}{r} 15)\ 110\ (7 \\ 105 \\ \hline 5. \end{array}$$

on dividing 110 by 15, we get

7 as qotient and 5 as remaindr

we note that remainder ≠ 0, so 110 is not divisible by 15.

$\therefore$ There fore. H.C.F and L.C.M of two numbers can not be 15 and 110 respectively

Reason: L.CM of two numbers is always exactly divisible by their H.C.F.