

Chapter-3

Factors and Multiples

Let's Recalled, (Page no. 157)

Q. (1) Find the factors using multiplication / division.

Answer:-

(a) 42

$$42 = 1 \times 42$$

$$42 = 2 \times 21$$

$$42 = 3 \times 14$$

$$42 = 6 \times 7$$

So, the factors of 42 are 1, 2, 3, 6, 7, 14, 21, 42

(b) 21

$$21 = 1 \times 21$$

$$21 = 3 \times 7$$

So, the factors of 21 are 1, 3, 7, 21

Q. (2) Find factors using prime factorisation.

Answer:-

(a) 54

$$\begin{array}{r|l} 2 & 54 \\ \hline \end{array}$$

$$\begin{array}{r|l} 3 & 27 \\ \hline \end{array}$$

$$\begin{array}{r|l} 3 & 9 \\ \hline \end{array}$$

$$\begin{array}{r|l} 3 & 3 \\ \hline \end{array}$$

$$\begin{array}{r|l} & 1 \\ \hline \end{array}$$

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

(b) 24

$$\begin{array}{r|l} 2 & 24 \\ \hline \end{array}$$

$$\begin{array}{r|l} 2 & 12 \\ \hline \end{array}$$

$$\begin{array}{r|l} 2 & 6 \\ \hline \end{array}$$

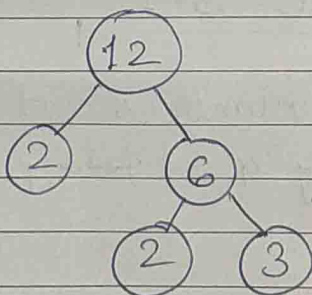
$$\begin{array}{r|l} 3 & 3 \\ \hline \end{array}$$

$$\begin{array}{r|l} & 1 \\ \hline \end{array}$$

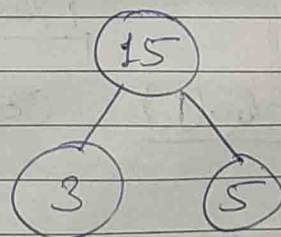
$$24 = 2 \times 2 \times 2 \times 3$$

Q. (3) Draw the factor tree for the following:-

(a) 12



(b) 15



(2)

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Q. (4) Check the divisibility of 342 by 2, 3, 5 and 10.

Answer \Rightarrow (i) Divisibility by 2 :-

342 has 2 at the ones place, so it is divisible by 2.

(ii) Divisibility by 3 :-

$$\begin{aligned} \text{Sum of the digits of } 342 &= 3+4+2 \\ &= 9 \end{aligned}$$

9 is divisible by 3, so 342 is also divisible by 3.

(iii) Divisibility by 5 :-

342 has 2 at the ones place, so it is not divisible by 5.

(iv) Divisibility by 10 :-

342 has 2 at the ones place, so it is not divisible by 10.

Practice Exercise 3.1

Q. (1) Colour those numbers that are divisible by 4 ~~in~~ purple.

Answer \Rightarrow

(a) 3524

Last two digits of 3524 are 24.
Since, 24 is divisible by 4.
Therefore, 3524 is divisible by 4.

(b) 9842

Last two digits of 9842 are 42.
Since, 42 is not divisible by 4.
Therefore, 9842 is not divisible by 4.

(c) 21,792

Last two digits of 21,792 are 92.
Since, 92 is divisible by 4.
Therefore, 21,792 is divisible by 4.

(d) 9064

Last two digits of 9064 are 64.
Since, 64 is divisible by 4,
therefore 9064 is divisible by 4.

(e) 16,582

Last two digits of 16,582 are 82.
Since, 82 is not divisible by 4,
therefore 16,582 is not divisible by 4.

Now colour the numbers 3524, 21792 and 9064 purple.

(a) 3524

(b) 9842

(c) 21,792

(d) 9064

(e) 16,582

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Q.2 Colour those numbers that are divisible by 6 pink?

Answer \Rightarrow (a) 59,426

59,426 has 6 at the ones place, so it is divisible by 2.

Sum of the digits in 59,426

= 5 + 9 + 4 + 2 + 6 = 26

26 is not divisible by 3.

Therefore, 59,426 is not divisible by 6.

(b) 30,957

30,957 has 7 at the ones place.

So it is not divisible by 2.

Therefore, 30,957 is not divisible by 6.

(c) 24,516

The last digit (ones place) is 6.

So it is divisible by 2.

Sum of the digits in 24,516

= 2 + 4 + 5 + 1 + 6 = 18

18 is divisible by 3.

Therefore 24,516 is divisible by 3.

So, it is divisible by 6 also.

(d) 13,854

It has 4 at the ones place,

so it is divisible by 2.

Sum of the digits in 13,854

= 1 + 3 + 8 + 5 + 4 = 21

21 is divisible by 3.

Therefore 13,854 is divisible by 3.
 \therefore It is divisible by 6 also.

(e) 36,594

It has 4 at the ones place, so it is divisible by 2.

Sum of the digits in 36,594 =

$$3 + 6 + 5 + 9 + 4 = 27$$

27 is divisible by 3, so 36,594 is also divisible by 3.

Therefore 36,594 is divisible by 6.

Now, colour 24,516, 13,854 and 36,594 pink.

(a) 59,426		(b) 30,957
(c) 24,516	(d) 13,854	(e) 36,594

Q. ③ Colour those numbers that are divisible by 8 green?

Answer \Rightarrow (a) 25,192

The number made by the last three digits = 192

192 is divisible by 8.

Thus, 25192 is divisible by 8.

(b) 34,361

The number made by the last three digits = 361

361 is not divisible by 8,

Thus 34361 is not divisible by 8.

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(c) 56,776

The number made by the last three digits = 776

776 is divisible by 8.

Thus 56776 is divisible by 8.

(d) 3248

The number made by the last three digits = 248

248 is divisible by 8.

Thus, 3248 is divisible by 8.

(e) 9457

The number made by the last three digits = 457

457 is not divisible by 8.

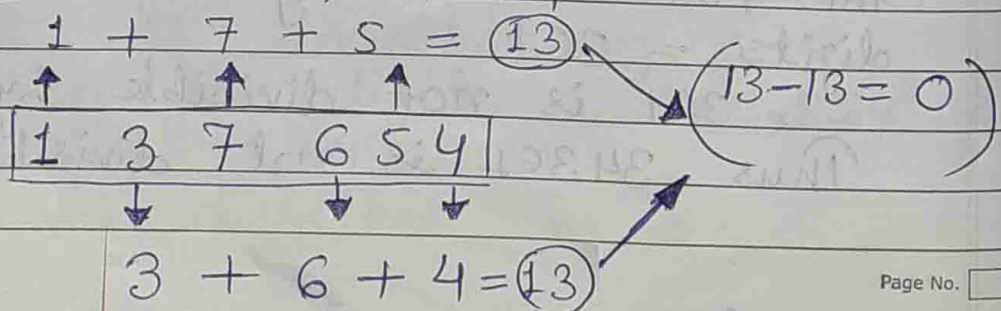
Thus, 9457 is not divisible by 8.

Now, colour 25192, 56776, 3248 green :-

(a) 25,192	(b) 34,367
(d) 3248	(e) 9457

Q. (4) Colour those numbers that are divisible by 11 red?

Answer -> (a) 1,37,654



$$\begin{array}{c}
 9 + 1 + 5 = 15 \\
 \uparrow \quad \uparrow \quad \uparrow \\
 \boxed{9, 41, 052} \\
 \downarrow \quad \downarrow \quad \downarrow \\
 4 + 0 + 2 = 6
 \end{array}
 \rightarrow (15 - 6 = 9)$$

Since the difference of the sums of the alternate digits of 9,41,052 is 9, and 9 is not divisible by 11, so 9,41,052 is not divisible by 11.

(e) 95,876

$$\begin{array}{c}
 9 + 8 + 6 = 23 \\
 \uparrow \quad \uparrow \quad \uparrow \\
 \boxed{9 \quad 5 \quad 8 \quad 7 \quad 6} \\
 \downarrow \quad \downarrow \\
 5 + 7 = 12
 \end{array}
 \rightarrow (23 - 12 = 11)$$

Since the difference of the sums of the alternate digits of 95,876 is 11 and 11 is divisible by 11, so 95,876 is divisible by 11.

Now, colour 137654, 32626 and 95876 red :-

(a) 1,37,654

(b) 2,41,960

(c) 32,626

(d) 9,41,052

(e) 95,876

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Practice Exercise 3.2

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Q. (1) Separate the prime and composite numbers and write them in the bubbles below.

Answer →

Prime Numbers

19, 23, 37, 83,
103, 13

Composite numbers

15, 45, 51, 63, 77
91, 119, 95, 78

Q. (2) Write the prime numbers between -

Answer → (a) 7 and 21
Prime numbers between 7 and 21 are 11, 13, 17 and 19.

(b) 23 and 43

Prime numbers between 23 and 43 are 29, 31, 37, 41.

(c) 81 and 99

Prime numbers between 81 and 99 are 83, 89 and 97.

(d) 67 and 88

Prime numbers between 67 and 88 are 71, 73, 79 and 83.

(e)

(10)

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Q. (3) Find the prime factors (using prime factorisation method) of the following numbers:-

Answer →

(a) 90

(b) 32

2	90
3	45
3	15
5	5
	1

2	32
2	16
2	8
2	4
2	2
	1

The prime factors of 90 are 2, 3, 5.

The prime factors of 32 is 2.

(c) 65

(d) 117

5	65
13	13
	1

3	117
3	39
13	13
	1

The prime factors of 65 are 5, 13.

The prime factors of 117 are 3 and 13.

Practice Exercise 3.3

Q. (1) Find the HCF by the short division method.

Answer → (a) 12 and 42

$$\begin{array}{r|l} 2 & 12, 42 \\ \hline 3 & 6, 21 \\ \hline & 2, 7 \end{array}$$

$$\begin{aligned} \text{HCF of } 12 \text{ and } 42 \\ &= 2 \times 3 \\ &= \underline{6} \end{aligned}$$

(b) 28 and 72

$$\begin{array}{r|l} 2 & 28, 72 \\ \hline 2 & 14, 36 \\ \hline & 7, 18 \end{array}$$

$$\begin{aligned} \text{HCF of } 28 \text{ and } 72 \\ &= 2 \times 2 \\ &= \underline{4} \end{aligned}$$

(c) 13 and 39

$$\begin{array}{r|l} 13 & 13, 39 \\ \hline & 1, 3 \end{array}$$

$$\begin{aligned} \text{HCF of } 13 \text{ and } 39 \\ &= 13 \end{aligned}$$

(d) 14 and 58

$$\begin{array}{r|l} 2 & 14, 58 \\ \hline & 7, 29 \end{array}$$

$$\begin{aligned} \text{HCF of } 14 \text{ and } 58 \\ &= 2 \end{aligned}$$

Q. ② Find the HCF by the long division method.

Answer → (a) 7 and 59

(11)

(12)

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$$\begin{array}{r}
 7 \overline{) 59} \quad (8 \\
 \underline{-56} \\
 3 \overline{) 7} \quad (2 \\
 \underline{-6} \\
 1 \overline{) 3} \quad (3 \\
 \underline{-3} \\
 0
 \end{array}$$

∴ HCF of 7 and 59 is 1.

(c) 19 and 97

$$\begin{array}{r}
 19 \overline{) 97} \quad (5 \\
 \underline{-95} \\
 2 \overline{) 19} \quad (9 \\
 \underline{-18} \\
 1 \overline{) 2} \quad (2 \\
 \underline{-2} \\
 0
 \end{array}$$

HCF of 19 and 97 is 1.

(b) 18 and 45

$$\begin{array}{r}
 18 \overline{) 45} \quad (2 \\
 \underline{-36} \\
 9 \overline{) 18} \quad (2 \\
 \underline{-18} \\
 0
 \end{array}$$

∴ HCF of 18 and 45 is 9.

(d) 14 and 46

$$\begin{array}{r}
 14 \overline{) 46} \quad (3 \\
 \underline{-42} \\
 4 \overline{) 14} \quad (3 \\
 \underline{-12} \\
 2 \overline{) 4} \quad (2 \\
 \underline{-4} \\
 0
 \end{array}$$

HCF of 14 and 46 is 2.

Q. (3) Find the HCF by the prime factorisation method:-

(a) 108 and 110

2	108	2	110
2	54	5	55
3	27	11	11
3	9		1
3	3		
	1		

$$\begin{aligned}
 108 &= 2 \times 2 \times 3 \times 3 \times 3 \\
 110 &= 2 \times 5 \times 11
 \end{aligned}$$

HCF of 108 and 110 is 2.

(81)

(14)

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2	12	3	33
2	6	11	11
3	3		
	1		1

12 = 2 x 2 x 3

33 = 3 x 11

LCM = 2 x 2 x 3 x 11 = 132

(b) 16 and 34

2	16	2	34
2	8	17	17
2	4		
2	2		
	1		

16 = 2 x 2 x 2 x 2

34 = 2 x 17

LCM = 2 x 2 x 2 x 2 x 17 = 272

(c) 15 and 45

3	15	3	45
5	5	3	15
	1	5	5
			1

15 = 3 x 5

45 = 3 x 3 x 5

LCM = 3 x 3 x 5 = 45

(d) 16 and 72

2	16	2	72
2	8	2	36
2	4	2	18
2	2	3	9
	1	3	3
			1

16 = 2 x 2 x 2 x 2

72 = 2 x 2 x 2 x 3 x 3

LCM = 2 x 2 x 2 x 2 x 3 x 3 = 144

(81)

(14)

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2	12	3	33
2	6	11	11
3	3		
	1		1

12 = 2 x 2 x 3

33 = 3 x 11

LCM = 2 x 2 x 3 x 11 = 132

(b) 16 and 34

2	16	2	34
2	8	17	17
2	4		
2	2		
	1		

16 = 2 x 2 x 2 x 2

34 = 2 x 17

LCM = 2 x 2 x 2 x 2 x 17 = 272

(c) 15 and 45

3	15	3	45
5	5	3	15
	1	5	5
			1

15 = 3 x 5

45 = 3 x 3 x 5

LCM = 3 x 3 x 5 = 45

(d) 16 and 72

2	16	2	72
2	8	2	36
2	4	2	18
2	2	3	9
	1	3	3
			1

16 = 2 x 2 x 2 x 2

72 = 2 x 2 x 2 x 3 x 3

LCM = 2 x 2 x 2 x 2 x 3 x 3 = 144

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Q. (2) Find the LCM by the common division method.

answer:- (a) 17 and 51

3	17, 51
17	17, 17
	1, 1

$$\begin{aligned} \text{LCM} &= 3 \times 17 \\ &= \underline{51} \end{aligned}$$

(b) 16 and 20

2	16, 20
2	8, 10
2	4, 5
2	2, 5
5	1, 5
	1, 1

$$\begin{aligned} \text{LCM} &= 2 \times 2 \times 2 \times 2 \times 5 \\ &= \underline{80} \end{aligned}$$

(c) 32 and 36

2	32, 36
2	16, 18
2	8, 9
2	4, 9
2	2, 9
3	1, 9
3	1, 3
	1, 1

$$\begin{aligned} \text{LCM} &= 2 \times 2 \times 2 \times 2 \times 2 \times 3 \times 3 \\ &= \underline{\underline{288}} \end{aligned}$$

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(d) 40 and 44

$$\begin{array}{r|l}
 2 & 40, 44 \\
 \hline
 2 & 20, 22 \\
 \hline
 2 & 10, 11 \\
 \hline
 5 & 5, 11 \\
 \hline
 11 & 1, 11 \\
 \hline
 & 1, 1
 \end{array}$$

$$\begin{aligned}
 \text{LCM} &= 2 \times 2 \times 2 \times 5 \times 11 \\
 &= \underline{440}
 \end{aligned}$$

MCQs (Page 173)

Q. (1) which of the following is the least prime number?

Answer \rightarrow (c) 2 is the smallest prime number.

Q. (2) which of the following is the greatest prime number less than 23?

Answer \rightarrow (a) 19

Q. (3) which of the following is the prime factorisation of 78?

Answer \rightarrow (d) $2 \times 3 \times 13$

Q. (4) what is the LCM of 7 and 5?

Answer \rightarrow (c) 35.

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Q. (5) Find the HCF of 3 and 5.

Answer → (a) 1.

Work It out (Page 174)

Q. (1) Which of the following are divisible by 4, 6, 8 and 11?

Answer → (a) 23,544

(i) Divisibility by 4 :-

Last two digits are 44, and 44 is divisible by 4.

So, 23544 is also divisible by 4.

(ii) Divisibility by 6 :-

23544 has 4 at the ones place, so it is divisible by 2.

Sum of the digits in 23544
= $2 + 3 + 5 + 4 + 4 = 18$

18 is divisible by 3, so 23544 is also divisible by 3.

Therefore, 23544 is divisible by 6.

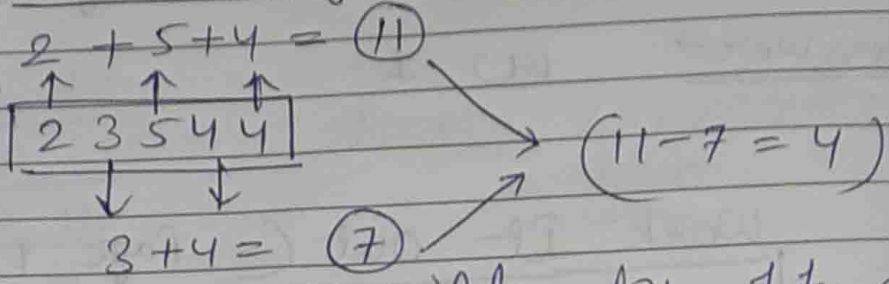
(iii) Divisibility by 8 :-

The number made by the last three digits = 544

544 is divisible by 8, so 23544 is also divisible by 8.

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(iv) Divisibility by 11 :-



4 is not divisible by 11, so 23544 is not divisible by 11.

(b) 89776

(i) Divisibility by 4 :-

The number made by the last two digits is 76 and 76 is divisible by 4. So, 89776 is divisible by 4.

(ii) Divisibility by 6 :-

89776 has 6 at the ones place, so it is divisible by 2.

Sum of the digits in 89776 = $8 + 9 + 7 + 7 + 6 = 37$

37 is not divisible by 3.

So, 89776 is not divisible by 3.

Therefore, 89776 is not divisible by 6.

(iii) Divisibility by 8 :-

The number made by the last three digits = 776

776 is divisible by 8, so 89776 is also divisible by 8.

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(iv) Divisibility by 11:-

$$\begin{array}{c}
 6 + 5 = 11 \\
 \uparrow \quad \uparrow \\
 \boxed{6 \quad 2 \quad 5 \quad 9} \\
 \downarrow \quad \downarrow \\
 2 + 9 = 11
 \end{array}
 \rightarrow (11 - 11 = 0)$$

0 is the difference, so 6259 is divisible by 11.

(d) 3664(i) Divisibility by 4:-

The number made by the last two digits is 64, and 64 is divisible by 4. So, 3664 is divisible by 4.

(ii) Divisibility by 6:-

3664 has 4 at the ones place, so it is divisible by 2.

Sum of the digits in 3664 =

$$3 + 6 + 6 + 4 = 19$$

19 is not divisible by 3, so

3664 is not divisible by 3.

Therefore, 3664 is not divisible by 6.

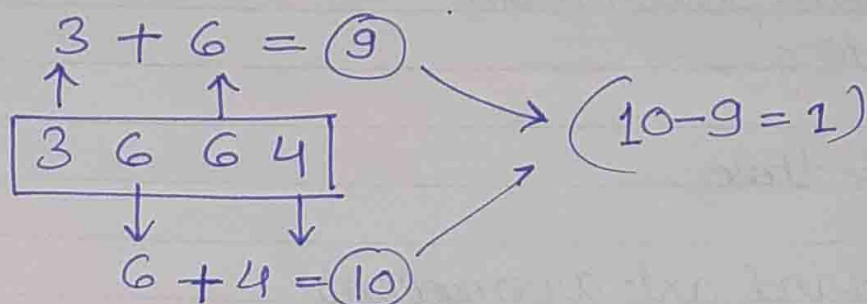
(iii) Divisibility by 8:-

The number made by the last three digits = 664

664 is divisible by 8.

So, 3664 is divisible by 8.

(iv) Divisibility by 11:-



1 is not divisible by 11, so 3664 is not divisible by 11.

(e) 52380

(i) Divisibility by 4:-

The number made by the last two digits is 80, and 80 is divisible by 4. So, 52380 is divisible by 4.

(ii) Divisibility by 6:-

52380 has 0 at the ones place, so it is divisible by 2.

Sum of the digits in 52380 =

$5 + 2 + 3 + 8 + 0 = 18$

18 is divisible by 3, so 52380 is divisible by 3.

Therefore, 52380 is divisible by 6.

(iii) Divisibility by 8:-

The number made by the last three digits = 380

380 is not divisible by 8, therefore 52380 is not divisible by 8.

(iv) Divisibility by 11:-

$$\begin{array}{ccccccc}
 & & 5 & + & 3 & + & 0 & = & (8) \\
 & \uparrow & & & \uparrow & & \uparrow & & \\
 & 5 & 2 & & 3 & 8 & 0 & & \\
 & & \downarrow & & \downarrow & & & & \\
 & & 2 & + & 8 & = & (10) & &
 \end{array}
 \rightarrow (10 - 8 = 2)$$

2 is not divisible by 11, so 52380 is not divisible by 11.

(f) 32,460 ✓

(i) Divisibility by 4:-

The number made by the last two digits is 60, and 60 is divisible by 4. So, 32460 is divisible by 4.

(ii) Divisibility by 6:- 32460 has 0 at the ones place, so it is

divisible by 2.

Sum of the digits in 32460 =

$$3 + 2 + 4 + 6 + 0 = 15$$

15 is divisible by 3, so 32460 is divisible by 3.

Therefore, it is divisible by 6.

(iii) Divisibility by 8 :-

The number made by the last three digits = 460

460 is not divisible by 8.

Therefore 32460 is not divisible by 8.

(iv) Divisibility by 11 :-

$$\begin{array}{cccccc}
 3 & + & 4 & + & 0 & = & \textcircled{7} \\
 \uparrow & & \uparrow & & \uparrow & & \\
 3 & & 2 & & 4 & & 6 & & 0 \\
 & & \downarrow & & \downarrow & & & & \\
 & & & & 2 & + & 6 & = & \textcircled{8}
 \end{array}
 \rightarrow (8 - 7 = 1)$$

1 is not divisible by 11, so 32460 is not divisible by 11.

Q-2 list all the prime numbers between 10 and 60.

Answer → All the prime numbers between

10 and 60 are =

11, 13, 17, 19, 23, 29, 31, 37, 41, 43, 47, 53 and 59.

Q. (3) Write the composite numbers between

(a) 7 and 15

Answer → 8, 9, 10, 12, 14

(b) 21 and 27

Answer → 22, 24, 25, 26

(c) 34 and 45

Answer → 35, 36, 38, 39, 40, 42, 44

(d) 50 and 57

Answer → 51, 52, 54, 55, 56

Q. (4) Find the prime factors (using prime factorisation method) of the following numbers:-

(a) 54

2	54
3	27
3	9
3	3
	1

54 = 2 × 3 × 3 × 3

(b) $\underline{\underline{44}}$ $\begin{array}{r|l} 2 & 44 \\ \hline 2 & 22 \\ \hline 11 & 11 \\ \hline & 1 \end{array}$ $\underline{\underline{44}} = 2 \times 2 \times 11$

(c) $\underline{\underline{89}}$ $\begin{array}{r|l} 89 & 89 \\ \hline & 1 \end{array}$ $\underline{\underline{89}} = 89 \times 1$

(d) $\underline{\underline{90}}$ $\begin{array}{r|l} 2 & 90 \\ \hline 3 & 45 \\ \hline 3 & 15 \\ \hline 5 & 5 \\ \hline & 1 \end{array}$ $\underline{\underline{90}} = 2 \times 3 \times 3 \times 5$

Q-(5) Find the HCF by the short division method.

(a) $\underline{\underline{35}}$ and $\underline{\underline{38}}$

Answer \rightarrow $\begin{array}{r|l} 1 & 35, 38 \\ \hline & 35, 38 \end{array}$ $\therefore \text{HCF} = \underline{\underline{1}}$

(b) $\underline{\underline{16}}$ and $\underline{\underline{60}}$

$\begin{array}{r|l} 2 & 16, 60 \\ \hline 2 & 8, 30 \\ \hline & 4, 15 \end{array}$ $\therefore \text{HCF} =$
 $2 \times 2 = \underline{\underline{4}}$

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Q. (6) Find the HCF by the long division method.

Answer →

(a) 18 and 33

$$\begin{array}{r} 18 \overline{) 33} (1 \\ -18 \end{array}$$

$$\begin{array}{r} 15 \overline{) 18} (1 \\ -15 \end{array}$$

$$\begin{array}{r} 3 \overline{) 15} (5 \\ -15 \end{array}$$

$$\begin{array}{r} 3 \overline{) 15} (5 \\ -15 \end{array}$$

$$\begin{array}{r} 3 \overline{) 15} (5 \\ -15 \\ 0 \end{array}$$

$$\therefore \text{HCF} = \underline{3}$$

(b) 24 and 42

$$\begin{array}{r} 24 \overline{) 42} (1 \\ -24 \end{array}$$

$$\begin{array}{r} 18 \overline{) 24} (1 \\ -18 \end{array}$$

$$\begin{array}{r} 6 \overline{) 18} (3 \\ -18 \end{array}$$

$$\begin{array}{r} 6 \overline{) 18} (3 \\ -18 \\ 0 \end{array}$$

$$\begin{array}{r} 6 \overline{) 18} (3 \\ -18 \\ 0 \end{array}$$

$$\therefore \text{HCF} = \underline{6}$$

Q. (7) Find the HCF by the prime factorisation method.

Answer → (a) 81 and 99

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$$\begin{array}{r|l}
 3 & 81 \\
 \hline
 3 & 27 \\
 \hline
 3 & 9 \\
 \hline
 3 & 3 \\
 \hline
 & 1
 \end{array}$$

$$\begin{array}{r|l}
 3 & 99 \\
 \hline
 3 & 33 \\
 \hline
 11 & 11 \\
 \hline
 & 1
 \end{array}$$

$$81 = 3 \times 3 \times 3 \times 3$$

$$99 = 3 \times 3 \times 11$$

$$\therefore \text{HCF} = 3 \times 3 = 9$$

(b) 78 and 143

$$\begin{array}{r|l}
 2 & 78 \\
 \hline
 3 & 39 \\
 \hline
 13 & 13 \\
 \hline
 & 1
 \end{array}$$

$$\begin{array}{r|l}
 11 & 143 \\
 \hline
 13 & 13 \\
 \hline
 & 1
 \end{array}$$

$$78 = 2 \times 3 \times 13$$

$$143 = 11 \times 13$$

$$\therefore \text{HCF} = 13$$

Q. 8 Find the LCM by the prime factorisation method.

Answer → (a) 72 and 40

$$\begin{array}{r|l}
 2 & 72 \\
 \hline
 2 & 36 \\
 \hline
 2 & 18 \\
 \hline
 3 & 9 \\
 \hline
 3 & 3 \\
 \hline
 & 1
 \end{array}$$

$$\begin{array}{r|l}
 2 & 40 \\
 \hline
 2 & 20 \\
 \hline
 2 & 10 \\
 \hline
 5 & 5 \\
 \hline
 & 1
 \end{array}$$

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

$$40 = 2 \times 2 \times 2 \times 5$$

$$\therefore \text{LCM} =$$

$$2 \times 2 \times 2 \times 3 \times 3 \times 5$$

$$= \underline{\underline{360}}$$

(b) 50 and 85

$$\begin{array}{r|l}
 2 & 50 \\
 \hline
 5 & 25 \\
 \hline
 5 & 5 \\
 \hline
 & 1
 \end{array}$$

$$\begin{array}{r|l}
 5 & 85 \\
 \hline
 17 & 17 \\
 \hline
 & 1
 \end{array}$$

$50 = 2 \times 5 \times 5$

$85 = 5 \times 17$

$\therefore \text{LCM} =$

$2 \times 5 \times 5 \times 17$

$= \underline{\underline{850}}$

Q. (9) Find the LCM by the division method.

Answer \rightarrow (a) 18 and 30

$$\begin{array}{r|l}
 2 & 18, 30 \\
 \hline
 3 & 9, 15 \\
 \hline
 3 & 3, 5 \\
 \hline
 5 & 1, 5 \\
 \hline
 & 1, 1
 \end{array}$$

$\text{LCM} = 2 \times 3 \times 3 \times 5$

$= \underline{\underline{90}}$

(b) 21 and 49

$$\begin{array}{r|l}
 3 & 21, 49 \\
 \hline
 7 & 7, 49 \\
 \hline
 7 & 1, 7 \\
 \hline
 & 1, 1
 \end{array}$$

$\text{LCM} = 3 \times 7 \times 7$

$= \underline{\underline{147}}$