31.08.21
August
Tuesday

Exercise 1o (D)

3. Find the HCF of the following by common division method.

(a) 4o and 6o.

2	4o, 6o
2	2o, 3o
5	1o, 15
	2, 3

Hence, the common factors are 2, 2, 5

HCF of 40 and 60 = 2 x 2 x 5 = 20.

(b) 45 and 225.

5	45, 225
3	9, 45
3	3, 15
	1, 5

Hence, the common factors are 5, 3, 3

HCF of 45 and 225 = 5 x 3 x 3 = 45.

(c) 21, 63 and 189.

3	21, 63, 189
7	7, 21, 63
	1, 3, 9

Hence, the common factors are 3, 7

HCF of 21, 63 and 189 = 3 x 7 = 21

(d) 87 and 145

29	87, 145
	3, 5

Hence, the common factors are 29
HCF of 87 and 145 = 29

(e) 14 and 28.

2	14, 28
7	7, 14
	1, 2

Hence, the common factors are 2, 7
HCF of 14 and 28 = 2 x 7 = 14

(f) 144, 252 and 228.

2	144, 252, 228
2	72, 126, 114
3	36, 63, 57
	12, 21, 19

Hence, the common factors are 2, 2, 3
HCF of 144, 252 and 228 = 2 x 2 x 3
= 12

(g) 125, 175 and 225.

5	125, 175, 225
5	25, 35, 45
	1, 6

Hence, the common factors are 5, 5

HCF of 125, 175 and 225 is $5 \times 5 = 25$.

(h) 27, 162

3	27, 162
3	9, 54
3	3, 18
	1, 6

Hence, the common factors are 3, 3, 3.

HCF of 27, 162 is $3 \times 3 \times 3 = 27$

(i) 69, 92

23	69, 92
	3, 4

Hence, the common factor is 23
HCF of 69, 92 = 23.

(j) 96, 144 and 168

2	96, 144, 168
2	48, 72, 84
2	24, 36, 42
3	12, 18, 21
	4, 6, 7

Hence, the common factor are 2, 2, 3.
HCF of 96, 144 and 168 = 2 x 2 x 3 = 24.