

Write a few more common multiples of 3, 5 and 6.

Example 5 : Find the common factors of 75, 60 and 210.

Solution : Factors of 75 are 1, 3, 5, 15, 25 and 75.

Factors of 60 are 1, 2, 3, 4, 5, 6, 10, 12, 15, 30 and 60.

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

Thus, common factors of 75, 60 and 210 are 1, 3, 5 and 15.

Example 6 : Find the common multiples of 3, 4 and 9.

Solution : Multiples of 3 are 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, 39, 42, 45, 48,

Multiples of 4 are 4, 8, 12, 16, 20, 24, 28, 32, 36, 40, 44, 48, ...

Multiples of 9 are 9, 18, 27, 36, 45, 54, 63, 72, 81, ...

Clearly, common multiples of 3, 4 and 9 are 36, 72, 108, ...



EXERCISE 3.4

- Find the common factors of:
 - 20 and 28
 - 15 and 25
 - 35 and 50
 - 56 and 120
- Find the common factors of:
 - 4, 8 and 12
 - 5, 15 and 25
- Find first three common multiples of:
 - 6 and 8
 - 12 and 18
- Write all the numbers less than 100 which are common multiples of 3 and 4.
- Which of the following numbers are co-prime?
 - 18 and 35
 - 15 and 37
 - 30 and 415
 - 17 and 68
 - 216 and 215
 - 81 and 16
- A number is divisible by both 5 and 12. By which other number will that number be always divisible?
- A number is divisible by 12. By what other numbers will that number be divisible?

3.6 Some More Divisibility Rules

Let us observe a few more rules about the divisibility of numbers.

- (i) Can you give a factor of 18? It is 9. Name a factor of 9? It is 3. Is 3 a factor of 18? Yes it is. Take any other factor of 18, say 6. Now, 2 is a factor of 6 and it also divides 18. Check this for the other factors of 18. Consider 24. It is divisible by 8 and the factors of 8 i.e. 1, 2, 4 and 8 also divide 24.

So, we may say that **if a number is divisible by another number then it is divisible by each of the factors of that number.**