

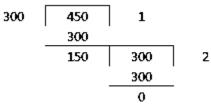
EXERCISE 2.7

Determine the HCF of the following numbers by using Euclid's algorithm (i – x):
(i) 300, 450
(ii) 399, 437
(iii) 1045, 1520
Solution:

2

(i) 300, 450

Taking 450 as dividend and 300 as divisor

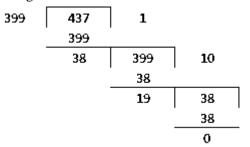


We know that the last divisor is 150

Therefore, HCF of 300, 450 is 150.

(ii) 399, 437

Taking 399 as dividend and 437 as divisor

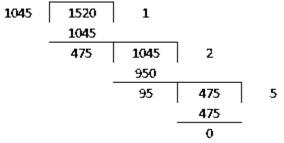


We know that the last divisor is 19

Therefore, HCF of 399, 437 is 19.

(iii) 1045, 1520

Taking 1045 as dividend and 1520 as divisor



We know that the last divisor is 95

Therefore, HCF of 1045, 1520 is 95.

2. Show that the following pairs are co-prime:

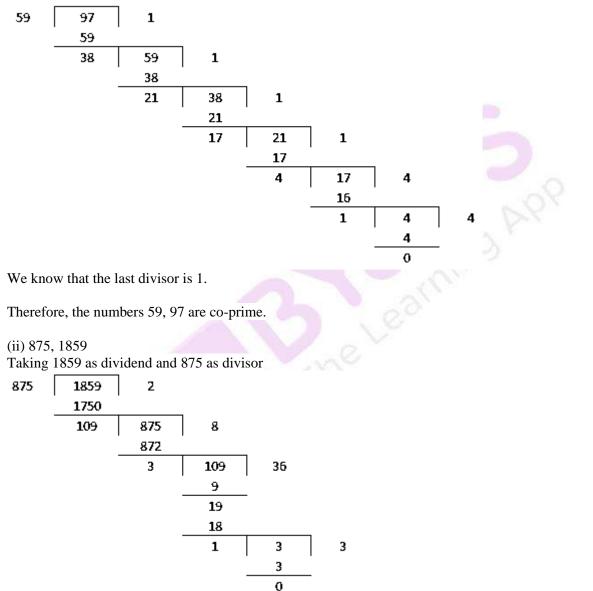
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(i) 59, 97 (ii) 875, 1859 (iii) 288, 1375 Solution:

(i) 59, 97

Taking 97 as dividend and 59 as divisor



We know that the last divisor is 1.

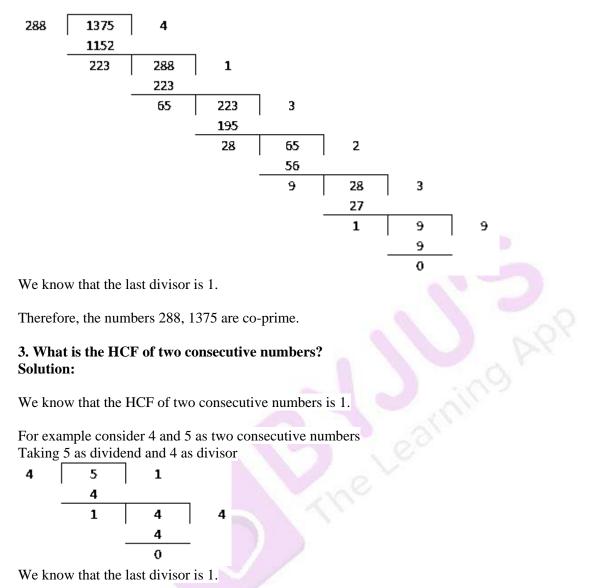
Therefore, the numbers 875, 1859 are co-prime.

(iii) 288, 1375

Taking 1375 as dividend and 288 as divisor

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Therefore, HCF of 4 and 5 is 1.

4. Write true (T) or false (F) for each of the following statements:

(i) The HCF of two distinct prime numbers is 1.

(ii) The HCF of two co-prime number is 1.

(iii) The HCF of an even and an odd number is 1.

(iv) The HCF of two consecutive even numbers is 2.

(v) The HCF of two consecutive odd numbers is 2. Solution:

(i) True.

(ii) True.

(iii) False. The HCF of even number 6 and odd number 9 is 3.

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(iv) True.

(v) False. The HCF of numbers 25 and 27 is 1.