

Find the greatest number which divides 285 and 1249 leaving remainders 9 and 7 respectively.

Solution:

$$285 - 9 = 276$$

$$1249 - 7 = 1242$$

The greatest number is the HCF of 285 and 1242

By Euclid's Division Algorithm

$$1242 = 276 \times 4 + 138$$

$$276 = 138 \times 2 + 0$$

$$\text{HCF} = 138$$

$$\text{Required number} = 138$$