

**Find the largest number which divides 615 and 963 leaving remainder 6 in each case.**

**Solution:**

$$615 - 6 = 609$$

$$963 - 6 = 957$$

The largest number is the HCF of 609 and 957.

By Euclid's Division Algorithm

$$957 = 609 \times 1 + 348$$

$$609 = 348 \times 1 + 261$$

$$348 = 261 \times 1 + 87$$

$$261 = 87 \times 3 + 0$$

$$\text{HCF} = 87$$

The required number = 87