Playing with Numbers Ex 2.7 Q1

Answer :

(i) 300 and 450

Dividend = 450 and divisor = 300

$$
\begin{array}{r}
300\overline{)\,450\,}(1 \\
\underline{300} \\
150\,\overline{)\,300\,}(2 \\
\underline{300} \\
0
\end{array}
$$

Clearly, the last divisor is 150.

Hence, HCF of the given numbers is 150.

(ii) 399 and 437

We have dividend = 399 and divisor = 437

$$
\begin{array}{r}
399\overline{)\,437\,}(1 \\
\underline{399} \\
38\,\overline{)\,399\,}(10 \\
\underline{38} \\
19\,\overline{)\,38\,}(2 \\
\underline{38} \\
0
\end{array}
$$

Clearly, the last divisor is 19.

Hence, HCF of the given numbers is 19.

(iii) 1045 and 1520

We have dividend = 1045 and divisor = 1520

$$
1045 \overline{\smash{\big)}\, 1520} \,(1
$$
```
1045 ) 1520 ( 1
       1045
       ____
        475 ) 1045 ( 2
               950
               ___
                95 ) 475 ( 5
                     475
                     ___
                       0
```

Clearly, the last divisor is 95.

Hence, HCF of the given numbers is 95.

Playing with Numbers Ex 2.7 Q2

Answer :

We know that two numbers are co-primes if their HCF is 1.

(i) 59 and 97

Here, dividend = 97 and divisor = 59

```
59 ) 97 ( 1
     59
     __
     38 ) 59 ( 1
          38
          __
          21 ) 38 ( 1
               21
               __
               17 ) 21 ( 1
                    17
                    __
                     4 ) 17 ( 4
                         16
                         __
                          1 ) 4 ( 4
                              4
                              _
                              0
```

Clearly, the last divisor is 1.

Hence, the given numbers are co-primes.

(ii) 875 and 1859

Here, dividend = 1,859 and divisor = 875

$$875\overline{)1859}(2$$
$$\underline{1750}$$
$$109\overline{)875}(8$$
$$\underline{872}$$
$$3\overline{)109}(36$$
$$\underline{9}$$
$$\underline{19}$$
$$\underline{18}$$
$$1\overline{)3}(3$$
$$\underline{3}$$
$$0$$

Clearly, the last divisor is 1.

Hence, the given numbers are co-primes.

(iii) 288 and 1375

Here, dividend = 288 and divisor = 1,375

$$288\overline{)1375}(4$$
$$\underline{1152}$$
$$223\overline{)288}(1$$
$$\underline{223}$$
$$65\overline{)223}(3$$
$$\underline{195}$$
$$28\overline{)65}(2$$
$$\underline{56}$$
$$9\overline{)28}(3$$
$$\underline{27}$$
$$1\overline{)9}(9$$
$$\underline{9}$$
$$0$$

Clearly, the last divisor is 1.

Hence, the given numbers are co-primes.

********** END *********