Exercise 3.

Q2. Find the H.C.F by the long division method

a) 434, 775.

434 | 775 | 1
-434
341 | 434 | 1
-341
93 | 341 | 3
-279
62 | 93 | 1
-62
31 | 62 | 2
-62
0.

H.C.F - 31

Q2. b) 264, 384, 842

264 | 384 | 1
−264
120 | 264 | 2
−240
24 | 120 | 5
−120
0

24, 842

24 | 842 | 35
−840
2 | 24 | 12
−24
0.

H.C.F = 2.

03. a) Greatest number that divides both 175 and 385.

$$
\begin{array}{r|l|l}
175 & 385 & 2 \\
 & -350 & \\
\hline
 & 35 \;|\; 175 & 5 \\
 & \quad -175 & \\
\hline
 & \quad\;\; 0 &
\end{array}
$$

Ans. 35 is the greatest number.

b) Nos. of pencils in three boxes
= 148, 272, 388.

Greatest number of pencils that can be placed in one box =

$$
\begin{array}{r|l|l}
148 & 272 & 1 \\
 & -148 & \\
\hline
 & 124 \;|\; 148 & 1 \\
 & \quad -124 & \\
\hline
 & \quad 24 \;|\; 124 & 5 \\
 & \quad\;\; -120 & \\
\hline
 & \quad\;\; 4 \;|\; 24 & 6 \\
 & \quad\;\; -24 & \\
\hline
 & \quad\;\; 0 &
\end{array}
$$

$$
\begin{array}{r|l|l}
4 & 388 & 97 \\
 & -36 & \\
\hline
 & 28 & \\
 & -28 & \\
\hline
 & 0 &
\end{array}
$$

Ans = 4 pencils can be packed in one box.

Exercise 3

1. **Find the HCF by the factorisation method.**

   a) 12, 16 b) 15, 30 c) 24, 32, 40 d) 36, 48, 96

2. **Find the HCF by the long division method.**

   a) 434, 775 b) 264, 384, 842 © 186, 320

3. **Solve the following.**

   a) What is the greatest number that divides both 175 and 385 exactly?

   b) There are three boxes of pencils which contains 148, 272, and 388 pencils. These are to be packed in smaller boxes. What greatest number of pencils can be packed in 1 box so that no pencil is left?

   © A farmer wants to plant 56 potatoes and 72 onion plants. If each row has both potatoes and onion plants and all the rows have the same number of vegetables, find the greater number of rows possible.

Spot Check