

CLASS: 5

SUBJECT: MATHEMATICS (Assignment 12)

Do the problems given below in the Math copy. (Answers are provided at the end)

TO FIND THE HCF OF THREE NUMBERS USING DIVISION METHOD

Example 1: Find the HCF of 184, 230 and 276.

Step 1: Take any two numbers and find their HCF using division method.

Let us choose 184 and 230 and find their HCF.

$$\begin{array}{r} 1 \\ 184 \overline{) 230} \\ \underline{-184} \\ 46 \end{array} \quad \begin{array}{r} 4 \\ 46 \overline{) 184} \\ \underline{-184} \\ \text{XXX} \end{array}$$

HCF of 184 and 230 = 46

Step 2: Now find the HCF of the HCF found in Step 1 and the third number.

The HCF of 184 and 230 is 46. Now find the HCF of 46 and 276.

$$\begin{array}{r} 6 \\ 46 \overline{) 276} \\ \underline{-276} \\ \text{XXX} \end{array}$$

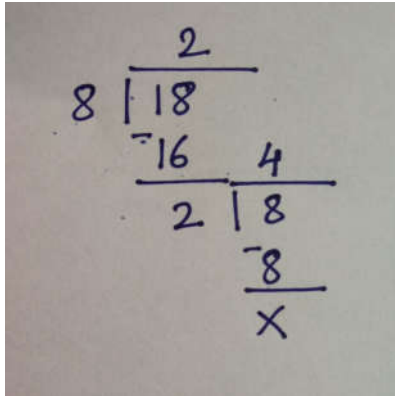
HCF of 46 and 276 = 46

Step 3: The HCF found in STEP2 is the HCF of the three numbers.

Example 2: Find the HCF of 8, 18 and 24.

Step 1: Take any two numbers and find their HCF using division method.

Let us choose 8 and 18 and find their HCF.



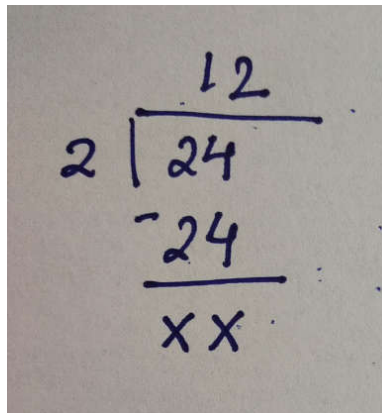
A handwritten division method showing the HCF of 8 and 18. It starts with 8 dividing 18, resulting in a quotient of 2 and a remainder of 4. Then, 2 divides 4, resulting in a quotient of 2 and a remainder of 0, indicated by an 'X'.

$$\begin{array}{r} 2 \\ \hline 8 \overline{)18} \\ \underline{-16} \quad 4 \\ 2 \overline{)4} \\ \underline{-4} \\ \text{X} \end{array}$$

HCF of 8 and 18 = 2

Step 2: Now find the HCF of the HCF found in Step 1 and the third number.

The HCF of 8 and 18 is 2. Now find the HCF of 2 and 24.



A handwritten division method showing the HCF of 2 and 24. It shows 2 dividing 24, resulting in a quotient of 12 and a remainder of 0, indicated by two 'X's.

$$\begin{array}{r} 12 \\ \hline 2 \overline{)24} \\ \underline{-24} \\ \text{X X} \end{array}$$

HCF of 2 and 24 = 2

Step 3: The HCF found in Step 3 is the HCF of the three numbers.

Questions

- Find the HCF of the following numbers using division method.
 - 15, 52 and 65
 - 15, 18 and 30
 - 42, 54 and 64
 - 8, 16 and 36
 - 9, 18 and 27
 - 20, 80 and 128
 - 60, 80 and 90
 - 25, 75 and 95
 - 12, 24 and 88
 - 136, 170 and 255

Answer key	
1.	
i. 1	ii. 3
iii. 2	iv. 4
v. 9	vi. 4
vii. 10	viii. 5
ix. 4	x. 17