

Factoring Practice (Step by Step) –GCF

GCF For Numbers

Greatest Common Factor (GCF) of some numbers, is the largest number that divides evenly into all of the numbers. Find common multiples of all the given numbers & then take the common with the lowest power.

Example – 1: Find the GCF for 18, 24

$$18 = 2 \cdot 9 = \boxed{2 \cdot 3^2} ; 24 = 2 \cdot 12 = 2 \cdot 2 \cdot 6 = 2 \cdot 2 \cdot 2 \cdot 3 = \boxed{2^3 \cdot 3} \rightarrow \text{GCF} = 2 \cdot 3 = 6$$

Example – 2: Find the GCF for 80, 200, 720, 760

$$80 = \boxed{2^4 \cdot 5} ; 200 = \boxed{2^3 \cdot 5^2} ; 720 = \boxed{2^4 \cdot 5 \cdot 2^3} ; 760 = \boxed{2^3 \cdot 5 \cdot 19} ; \text{GCF} = \boxed{2^3 \cdot 5} = 8 \cdot 5 = 40$$

Note: $80 \div 40 = 2$; $200 \div 40 = 5$; $720 \div 40 = 18$; $760 \div 40 = 19$ (Nothing common between 2, 5, 18, 19)

Find GCF for the followings

1) 7, 21

2) 8, 12, 20

3) 25, 45, 60

4) 24, 48, 60

5) 25, 75, 100

6) 60, 144, 180

7) 54, 126, 198

8) 40, 88, 96, 104

9) 60, 84, 132, 180

10) 75, 165, 180, 195