



I. **Greatest Common Factor (GCF)**

Find the GCF of the numbers.

$\frac{12}{6} = 2$     $\frac{18}{6} = 3$

**GCF = 6**

|                |
|----------------|
| 18, 30         |
| 18 = 2 · 3 · 3 |
| 30 = 2 · 3 · 5 |
| 2 · 3 = 6      |
| 6 = GCF        |

1. 12, 18     2. 10, 35     3. 8, 30     4. 16, 24     5. 28, 49     6. 27, 63     7. 30, 45     8. 48, 72

Handwritten prime factorizations and GCF calculations are shown for each pair:

- 12 = 2 · 2 · 3, 18 = 2 · 3 · 3, GCF = 2 · 3 = 6
- 10 = 2 · 5, 35 = 5 · 7, GCF = 5
- 8 = 2 · 2 · 2, 30 = 2 · 3 · 5, GCF = 2
- 16 = 2 · 2 · 2 · 2, 24 = 2 · 2 · 2 · 3, GCF = 2 · 2 · 2 = 8
- 28 = 2 · 2 · 7, 49 = 7 · 7, GCF = 7
- 27 = 3 · 3 · 3, 63 = 3 · 3 · 7, GCF = 3 · 3 = 9
- 30 = 2 · 3 · 5, 45 = 3 · 3 · 5, GCF = 3 · 3 = 9
- 48 = 2 · 2 · 2 · 2 · 3, 72 = 2 · 2 · 2 · 3 · 3, GCF = 2 · 2 · 2 · 3 = 24

Practice work.

Find the GCF for each pair of numbers

- 1) 144, 36
- 2) 48, 144
- 3) 363, 44