

Reteaching 3-3

Greatest Common Factor

You can find the *greatest common factor (GCF)* of 12 and 18 using a division ladder, factor trees, or by listing the factors. Two of these methods are shown.

- ① List the factors of 12 and 18.

12: 1, 2, 3, 4, 6, 12

18: 1, 2, 3, 6, 9, 18

- ② Find the common factors.

12: ①, ②, ③, 4, ⑥, 12

18: ①, ②, ③, ⑥, 9, 18

The common factors are 1, 2, 3, and 6.

- ③ Name the greatest common factor: 6.

- ① Draw factor trees.



- ② Write each prime factorization. Identify common factors.

12: ② × 2 × ③

18: ② × ③ × 3

- ③ Multiply the common factors. $2 \times 3 = 6$.
The GCF of 12 and 18 is 6.

List the factors to find the GCF of each set of numbers.

1. 10: _____ 2. 14: _____ 3. 9: _____

15: _____ 21: _____ 21: _____

GCF: _____ GCF: _____ GCF: _____

4. 12: _____ 5. 15: _____ 6. 15: _____

13: _____ 25: _____ 18: _____

GCF: _____ GCF: _____ GCF: _____

7. 36: _____ 8. 24: _____

48: _____ 30: _____

GCF: _____ GCF: _____

Find the GCF of each set of numbers.

9. 21, 60 _____ 10. 15, 45 _____ 11. 32, 40 _____

12. 54, 60 _____ 13. 20, 50 _____ 14. 21, 63 _____

15. 36, 40 _____ 16. 48, 72 _____ 17. 90, 150 _____