Name _____ Date _____

Greatest Common Factor (GCF)

Find the greatest common factor of each pair.

1. 90 and 99 _____
2. 30 and 80 _____
3. 63 and 70 _____
4. 18 and 63 _____
5. 65 and 79 _____
6. 49 and 91 _____
7. 20 and 50 _____
8. 4 and 100 _____
9. 63 and 90 _____
10. 70 and 80 _____
11. 40 and 90 _____
12. 11 and 88 _____
13. 20 and 45 _____
14. 40 and 50 _____
15. 54 and 57 _____
16. 15 and 72 _____
17. 36 and 99 _____
18. 55 and 100 _____
19. 8 and 24 _____
20. 59 and 70 _____

Answer Key: Greatest Common Factor (GCF)

Each answer shows the prime factorizations used to find it.

1. **9** $90 = 2 \times 3^2 \times 5$; $99 = 3^2 \times 11$. Shared primes, lowest powers: 3^2, so the GCF is 9.
2. **10** $30 = 2 \times 3 \times 5$; $80 = 2^4 \times 5$. Shared primes, lowest powers: 2×5, so the GCF is 10.
3. **7** $63 = 3^2 \times 7$; $70 = 2 \times 5 \times 7$. Shared primes, lowest powers: 7, so the GCF is 7.
4. **9** $18 = 2 \times 3^2$; $63 = 3^2 \times 7$. Shared primes, lowest powers: 3^2, so the GCF is 9.
5. **1** $65 = 5 \times 13$; 79 is prime. No prime factor is shared, so the GCF is 1.
6. **7** $49 = 7^2$; $91 = 7 \times 13$. Shared primes, lowest powers: 7, so the GCF is 7.
7. **10** $20 = 2^2 \times 5$; $50 = 2 \times 5^2$. Shared primes, lowest powers: 2×5, so the GCF is 10.
8. **4** $4 = 2^2$; $100 = 2^2 \times 5^2$. Shared primes, lowest powers: 2^2, so the GCF is 4.
9. **9** $63 = 3^2 \times 7$; $90 = 2 \times 3^2 \times 5$. Shared primes, lowest powers: 3^2, so the GCF is 9.
10. **10** $70 = 2 \times 5 \times 7$; $80 = 2^4 \times 5$. Shared primes, lowest powers: 2×5, so the GCF is 10.
11. **10** $40 = 2^3 \times 5$; $90 = 2 \times 3^2 \times 5$. Shared primes, lowest powers: 2×5, so the GCF is 10.
12. **11** 11 is prime; $88 = 2^3 \times 11$. Shared primes, lowest powers: 11, so the GCF is 11.
13. **5** $20 = 2^2 \times 5$; $45 = 3^2 \times 5$. Shared primes, lowest powers: 5, so the GCF is 5.
14. **10** $40 = 2^3 \times 5$; $50 = 2 \times 5^2$. Shared primes, lowest powers: 2×5, so the GCF is 10.
15. **3** $54 = 2 \times 3^3$; $57 = 3 \times 19$. Shared primes, lowest powers: 3, so the GCF is 3.
16. **3** $15 = 3 \times 5$; $72 = 2^3 \times 3^2$. Shared primes, lowest powers: 3, so the GCF is 3.
17. **9** $36 = 2^2 \times 3^2$; $99 = 3^2 \times 11$. Shared primes, lowest powers: 3^2, so the GCF is 9.
18. **5** $55 = 5 \times 11$; $100 = 2^2 \times 5^2$. Shared primes, lowest powers: 5, so the GCF is 5.
19. **8** $8 = 2^3$; $24 = 2^3 \times 3$. Shared primes, lowest powers: 2^3, so the GCF is 8.
20. **1** 59 is prime; $70 = 2 \times 5 \times 7$. No prime factor is shared, so the GCF is 1.