Name _____ Date _____

Least Common Multiple (LCM)

Find the least common multiple of each pair.

1. 5 and 12 _____
2. 10 and 12 _____
3. 5 and 9 _____
4. 7 and 10 _____
5. 2 and 10 _____
6. 2 and 4 _____
7. 8 and 9 _____
8. 2 and 11 _____
9. 5 and 8 _____
10. 7 and 12 _____
11. 5 and 7 _____
12. 2 and 3 _____
13. 3 and 12 _____
14. 3 and 7 _____
15. 6 and 12 _____
16. 5 and 6 _____
17. 4 and 10 _____
18. 7 and 8 _____
19. 8 and 10 _____
20. 2 and 8 _____

Answer Key: Least Common Multiple (LCM)

Each answer shows the prime factorizations used to find it.

1. **60** 5 is prime; $12 = 2^2 \times 3$. Every prime, highest power: $2^2 \times 3 \times 5$, so the LCM is 60.
2. **60** $10 = 2 \times 5$; $12 = 2^2 \times 3$. Every prime, highest power: $2^2 \times 3 \times 5$, so the LCM is 60.
3. **45** 5 is prime; $9 = 3^2$. Every prime, highest power: $3^2 \times 5$, so the LCM is 45.
4. **70** 7 is prime; $10 = 2 \times 5$. Every prime, highest power: $2 \times 5 \times 7$, so the LCM is 70.
5. **10** 2 is prime; $10 = 2 \times 5$. Every prime, highest power: 2×5, so the LCM is 10.
6. **4** 2 is prime; $4 = 2^2$. Every prime, highest power: 2^2, so the LCM is 4.
7. **72** $8 = 2^3$; $9 = 3^2$. Every prime, highest power: $2^3 \times 3^2$, so the LCM is 72.
8. **22** 2 is prime; 11 is prime. Every prime, highest power: 2×11, so the LCM is 22.
9. **40** 5 is prime; $8 = 2^3$. Every prime, highest power: $2^3 \times 5$, so the LCM is 40.
10. **84** 7 is prime; $12 = 2^2 \times 3$. Every prime, highest power: $2^2 \times 3 \times 7$, so the LCM is 84.
11. **35** 5 is prime; 7 is prime. Every prime, highest power: 5×7, so the LCM is 35.
12. **6** 2 is prime; 3 is prime. Every prime, highest power: 2×3, so the LCM is 6.
13. **12** 3 is prime; $12 = 2^2 \times 3$. Every prime, highest power: $2^2 \times 3$, so the LCM is 12.
14. **21** 3 is prime; 7 is prime. Every prime, highest power: 3×7, so the LCM is 21.
15. **12** $6 = 2 \times 3$; $12 = 2^2 \times 3$. Every prime, highest power: $2^2 \times 3$, so the LCM is 12.
16. **30** 5 is prime; $6 = 2 \times 3$. Every prime, highest power: $2 \times 3 \times 5$, so the LCM is 30.
17. **20** $4 = 2^2$; $10 = 2 \times 5$. Every prime, highest power: $2^2 \times 5$, so the LCM is 20.
18. **56** 7 is prime; $8 = 2^3$. Every prime, highest power: $2^3 \times 7$, so the LCM is 56.
19. **40** $8 = 2^3$; $10 = 2 \times 5$. Every prime, highest power: $2^3 \times 5$, so the LCM is 40.
20. **8** 2 is prime; $8 = 2^3$. Every prime, highest power: 2^3, so the LCM is 8.