

4-1**Practice****Prime Factorization**

Determine whether each number is *prime* or *composite*.

1. 45

2. 17

3. 21

4. 51

5. 11

6. 71

7. 3

8. 27

9. 47

Find the prime factorization of each number.

10. 88

11. 39

12. 75

13. 124

14. 165

15. 225

16. 100

17. 91

18. 27

ALGEBRA Factor each expression.

19. $20xy$

20. $18bc$

21. $11pqr$

22. $36g^2h^2$

23. $44m^2n$

24. $25z^2$

Replace each ● with prime factors to make a true sentence.

25. $2^2 \cdot \bullet \cdot 7 = 252$

26. $2 \cdot \bullet \cdot 5^3 = 750$

27. $2^3 \cdot \bullet \cdot 3^2 = 1,800$

28. **ALGEBRA** Is $2x + y$ *prime* or *composite* if $x = 2$ and $y = 7$?

29. **ATHLETICS** The distance around an oval running track is 440 yards. Write this distance as a product of primes.