

Practice

Factors and Greatest Common Factors

Find the factors of each number. Then classify each number as *prime* or *composite*.

1. 18

2. 37

3. 48

4. 116

5. 138

6. 211

Find the prime factorization of each integer.

7. 52

8. -96

9. 108

10. 225

11. 286

12. -384

Factor each monomial completely.

13. $30d^5$

14. $-72mn$

15. $81b^2c^3$

16. $145abc^3$

17. $168pq^2r$

18. $-121x^2yz^2$

Find the GCF of each set of monomials.

19. 18, 49

20. 18, 45, 63

21. 16, 24, 48

22. 12, 30, 114

23. 9, 27, 77

24. 24, 72, 108

25. $24fg^5$, $56f^3g$

26. $72r^2s^2$, $36rs^3$

27. $15a^2b$, $35ab^2$

28. $28m^3n^2$, $45pq^2$

29. $40xy^2$, $56x^3y^2$, $124x^2y^3$

30. $88c^3d$, $40c^2d^2$, $32c^2d$

GEOMETRY For Exercises 31 and 32, use the following information.

The area of a rectangle is 84 square inches. Its length and width are both whole numbers.

31. What is the minimum perimeter of the rectangle?

32. What is the maximum perimeter of the rectangle?

RENOVATION For Exercises 33 and 34, use the following information.

Ms. Baxter wants to tile a wall to serve as a splashguard above a basin in the basement. She plans to use equal-sized tiles to cover an area that measures 48 inches by 36 inches.

33. What is the maximum-size square tile Ms. Baxter can use and not have to cut any of the tiles?

34. How many tiles of this size will she need?