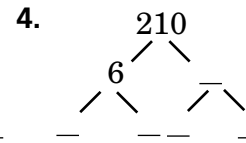
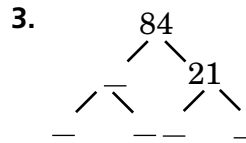
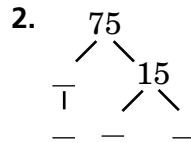
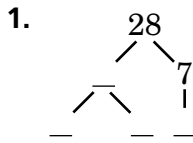


Skill: Prime Factorization

Investigation 4

Prime Time

Complete each factor tree.



Find the prime factorization of each number.

5. 58

6. 72

7. 40

8. 310

Find the number with the given prime factorization.

9. $2 \times 2 \times 5 \times 7 \times 11$

10. $7 \times 11 \times 13 \times 17$

11. There are 32 students in a class. How many ways can the class be divided into groups with equal numbers of students? What are they?

Write the prime factorization. Use exponents where possible.

12. 78

13. 126

14. 125

15. 90

16. 92

17. 180

Skill: Prime Factorization *(continued)***Investigation 4****Prime Time**

Use prime factorization to find the LCM of each set of numbers.

18. 18, 21 19. 15, 21 20. 18, 24 21. 21, 24

22. At a store, hot dogs come in packages of eight and hot dog buns come in packages of twelve. What is the least number of packages of each type that you can buy and have no hot dogs or buns left over?

Use factor trees to find the GCF of each set of numbers.

23. 57, 27 24. 24, 48 25. 56, 35 26. 29, 87

27. The GCF of two numbers is 850. Neither number is divisible by the other. What is the smallest that these two numbers could be?