

8-1
EXERCISES

Chapter 8
Factoring Polynomials

Homework Help Online

Online Support for Lesson 8-1 Homework

GUIDED PRACTICE

Click a video icon to see a Lesson Tutorial Video. Click a pencil icon to practice similar problems.



VIDEO

See Example 1

Write the prime factorization of each number.

2. 20

3. 36

4. 27

5. 54

6. 96

7. 7

8. 100

9. 75



PRACTICE



VIDEO

See Example 2

Find the GCF of each pair of numbers.

10. 12 and 60

11. 14 and 49

12. 55 and 121



PRACTICE



VIDEO

See Example 3

Find the GCF of each pair of monomials.

13. $6x^2$ and $5x^2$

14. $15y^3$ and $-20y$

15. $13q^4$ and $2p^2$



PRACTICE



VIDEO

See Example 4

16. Samantha is making beaded necklaces using 54 glass beads and 18 clay beads. She wants each necklace to have the same number of beads, but each necklace will have only one type of bead. If she puts the greatest possible number of beads on each necklace, how many necklaces can she make?



PRACTICE





VIDEO

Write the prime factorization of each number.

17. 18

18. 64

19. 12

20. 150

21. 17

22. 226

23. 49

24. 63



VIDEO

Find the GCF of each pair of numbers.

25. 36 and 63

26. 14 and 15

27. 30 and 40



VIDEO

Find the GCF of each pair of monomials.

28. $8a^2$ and 11

29. $9s$ and $63s^3$

30. $-64n^4$ and $24n^2$



31. José is making fruit-filled tart shells for a party. He has 72 raspberries and 108 blueberries. He wants the same number of each type of fruit in each tart. If he puts the greatest possible number of fruits in each tart, how many tarts can he make?



SOLUTION

Find the GCF of each pair of products.

33. $-1 \cdot 2 \cdot 2 \cdot x \cdot x$ and $2 \cdot 2 \cdot 7 \cdot x \cdot x \cdot x$



SOLUTION

35. $2 \cdot 5 \cdot n \cdot n \cdot n$ and $-1 \cdot 2 \cdot 3 \cdot n$



SOLUTION

For each set of numbers, determine which two numbers have a GCF greater than 1, and find that GCF.

41. 8, 20, 63



43. 32, 63, 105



Fill in each diagram. Then write the prime factorization of the number.

