

Practice 9-8

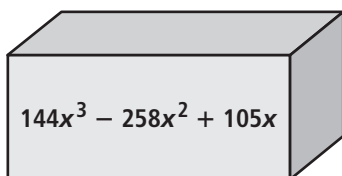
Factoring by Grouping

Factor each expression.

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|-----------------------------|-------------------------------|------------------------------|
| 1. $x(a + 2) - 2(a + 2)$ | 2. $3(x + y) + a(x + y)$ | 3. $m(x - 3) + k(x - 3)$ |
| 4. $a(y + 1) - b(y + 1)$ | 5. $x^2 + 3x + 2xy + 6y$ | 6. $y^2 - 5wy + 4y - 20w$ |
| 7. $xy + 4y - 2x - 8$ | 8. $ab + 7b - 3a - 21$ | 9. $ax + bx + ay + by$ |
| 10. $ax + bx - ay - by$ | 11. $2x^2 - 6xy + 5x - 15y$ | 12. $3x^2 - 6xy + 2x - 4y$ |
| 13. $2ax + 6xc + ba + 3bc$ | 14. $x^2y - 3x^2 - 2y + 6$ | 15. $6 + 2y + 3x^2 + x^2y$ |
| 16. $2x^2 - 3x + 1$ | 17. $2x^2 - 7x + 3$ | 18. $6x^2 + 7x + 2$ |
| 19. $4x^2 + 8x + 3$ | 20. $6x^2 - 7x + 2$ | 21. $4x^2 - 9x + 2$ |
| 22. $2x^2 - 3x - 2$ | 23. $12x^2 - x - 1$ | 24. $6x^2 + 19x + 3$ |
| 25. $12y^2 - 5y - 2$ | 26. $10y^2 + 21y - 10$ | 27. $5y^2 + 13y + 6$ |
| 28. $16y^2 + 10y + 1$ | 29. $16x^2 - 14x + 3$ | 30. $16x^2 + 16x + 3$ |
| 31. $10x^2 - 3x - 1$ | 32. $9x^2 + 25x - 6$ | 33. $14x^2 + 15x - 9$ |
| 34. $2x^3 + 8x^2 + x + 4$ | 35. $8x^4 + 6x - 28x^3 - 21$ | 36. $5x^3 - x^2 + 15x - 3$ |
| 37. $x^3 + 3x^2 + 4x + 12$ | 38. $6x^3 + 3x^2 + 2x + 1$ | 39. $3x^3 + 9x^2 + 2x + 6$ |
| 40. $9x^3 - 12x^2 + 3x - 4$ | 41. $10x^3 - 25x^2 + 4x - 10$ | 42. $4x^3 - 20x^2 + 3x - 15$ |

Find expressions for the possible dimensions of each rectangular prism.

43. The volume of the prism is given.



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