

Practice 9-8

Factoring by Grouping

Factor each expression.

- $x(a + 2) - 2(a + 2)$
- $3(x + y) + a(x + y)$
- $m(x - 3) + k(x - 3)$
- $a(y + 1) - b(y + 1)$
- $x^2 + 3x + 2xy + 6y$
- $y^2 - 5wy + 4y - 20w$
- $xy + 4y - 2x - 8$
- $ab + 7b - 3a - 21$
- $ax + bx + ay + by$
- $ax + bx - ay - by$
- $2x^2 - 6xy + 5x - 15y$
- $3x^2 - 6xy + 2x - 4y$
- $2ax + 6xc + ba + 3bc$
- $x^2y - 3x^2 - 2y + 6$
- $6 + 2y + 3x^2 + x^2y$
- $2x^2 - 3x + 1$
- $2x^2 - 7x + 3$
- $6x^2 + 7x + 2$
- $4x^2 + 8x + 3$
- $6x^2 - 7x + 2$
- $4x^2 - 9x + 2$
- $2x^2 - 3x - 2$
- $12x^2 - x - 1$
- $6x^2 + 19x + 3$
- $12y^2 - 5y - 2$
- $10y^2 + 21y - 10$
- $5y^2 + 13y + 6$
- $16y^2 + 10y + 1$
- $16x^2 - 14x + 3$
- $16x^2 + 16x + 3$
- $10x^2 - 3x - 1$
- $9x^2 + 25x + 6$
- $14x^2 + 15x - 9$
- $2x^3 + 8x^2 + x + 4$
- $8x^4 + 6x - 28x^3 - 21$
- $5x^3 - x^2 + 15x - 3$
- $x^3 + 3x^2 + 4x + 12$
- $6x^3 + 3x^2 + 2x + 1$
- $3x^3 + 9x^2 + 2x + 6$
- $9x^3 - 12x^2 + 3x - 4$
- $10x^3 - 25x^2 + 4x - 10$
- $4x^3 - 20x^2 + 3x - 15$

Find expressions for the possible dimensions of each rectangular prism.

43. The volume of the prism is given.

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