UNIT 3 • MODELING AND ANALYZING QUADRATIC FUNCTIONS
Lesson 1: Creating and Solving Quadratic Equations in One Variable

Practice 3.1.4: Factoring Expressions with $a > 1$ A

For problems 1–3, factor each expression by grouping.

1. $15x^2 - 5x + 21x - 7$

2. $3n^2 + 2n + 24n + 16$

3. $4y^2 - 18y - 14y + 63$

For problems 4–7, factor each trinomial.

4. $3x^2 + 11x - 20$

5. $3a^2 + 39a + 108$

6. $25n^2 + 20n + 4$

7. $12y^2 - 46y + 14$

For problems 8–10, each expression represents the area of a rectangle or square. Factor each polynomial to find the expressions that represent the length and width of each figure.

8. $(9x^2 + 42x + 49)$ square inches

9. $(5x^2 + 14x - 3)$ square feet

10. $(6x^2 + 17x - 14)$ square meters