ALGEBRA 2 · CLASSWORK · ADVANCED

Factor a Quadratic Expression

SCORE / 25

01 Part A · Practice

To factor $ax^2 + bx + c$, look for a common factor, then find two numbers with product ac and sum b (or use a special pattern).

EXAMPLE

Factor $3x^2 + 10x - 8$.

1. $ac = -24$; $12 \cdot (-2) = -24$, $12 + (-2) = 10$.
2. $3x^2 + 12x - 2x - 8 = 3x(x + 4) - 2(x + 4)$.
3. $(3x - 2)(x + 4)$.

1 ●○○ Factor $x^2 + 13x + 42$.

2 ●○○ Factor $18x^2 - 15x + 2$.

3 ●○○ Factor completely: $4x^2 + 12x + 9$.

4 ●○○ Factor $15x^2 + 22x + 8$.

5 ●○○ Factor completely: $3x^2 - 21x + 30$.

6 ●○○ Factor $x^2 - 17x + 66$.

7 ●○○ Factor $2x^2 + 13x + 20$.

8 ●○○ Factor completely: $2x^2 - 2x - 40$.

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Preview - the full worksheet and its answer key are at primeworksheet.com