ALGEBRA 2 · CLASSWORK

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 $x^2 + 3x - 54$.

2 ●○○ Factor completely: $3x^2 - 6x - 105$.

3 ●○○ Factor $9x^2 - 18x - 7$.

4 ●○○ Factor $12x^2 - 37x + 28$.

5 ●○○ Factor completely: $x^2 - 14x + 49$.

6 ●○○ Factor $x^2 + 6x + 5$.

7 ●○○ Factor $x^2 - 6x - 7$.

8 ●○○ Factor completely: $5x^2 + 30x - 80$.

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