ALGEBRA 1 · CLASSWORK · SPECIAL ED

Factor ax2 + bx + c with a GCF

SCORE / 25

01 Part A · Practice

Factor out the GCF first (a negative one if $a < 0$), then factor the remaining trinomial; check that nothing else factors.

EXAMPLE

Factor $12x^2 + 2x - 4$.

1. GCF 2: $2(6x^2 + x - 2)$.
2. $6x^2 + x - 2 = (3x + 2)(2x - 1)$.
3. $2(3x + 2)(2x - 1)$

WORDS TO KNOW

GCF	the greatest common factor of all terms
factor completely	no factor can be factored further
trinomial	three terms

1 ●○○

Factor completely. $8x^2 + 32x + 30$

HINT Factor out the GCF of the coefficients first; then factor the trinomial that is left.

2 ●○○

Factor completely. $12x^2 + 52x + 48$

HINT If the leading coefficient is negative, factor out a negative GCF.

3 ●○○

Factor completely. $4x^3 + 8x^2 + 3x$

HINT Factor out the GCF, including any power of x. Then factor the trinomial.

4 ●○○

Factor completely. $6x^2 + 28x + 30$

HINT Factor out the GCF of the coefficients first; then factor the trinomial that is left.

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