Expand and Factor Linear Expressions: Paired Practice Guide

Worked example / complete source key

Expand -4(3x - 5) and then factor the result by the GCF to check.

Answer: Expanded: -12x + 20. Factored check: -4(3x - 5), since -4·3x = -12x and -4·(-5) = 20.

Reason: Distribute -4 to both terms: -4·3x = -12x and -4·(-5) = +20. To check, find the GCF of -12x and 20. The GCF is -4 if we want a positive first inside term: -12x ÷ -4 = 3x and 20 ÷ -4 = -5, giving -4(3x - 5).

Check: Expand the factored check: -4(3x - 5) = -12x + 20, which matches the expanded result.