Situation 09: Perfect Square Trinomials
PRIME at University of Georgia
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Prompt

A teacher is teaching about factoring perfect square trinomials and has just gone over a number of examples (e.g.,). Students have developed the impression that they need only check that the first and last terms of a trinomial are perfect squares in order to decide how to factor it. They are developing the impression that the middle term is irrelevant so that no matter what the term in the box. The teacher needed to construct a counterexample on the spot, and he wanted one whose terms had no common factor besides 1. What mathematical knowledge did he need or use to accomplish his task?

Commentary

Mathematical Foci

Mathematical Focus 1

Mathematical Focus 2

Mathematical Focus 3

Mathematical Focus 4