

## Algebra Essentials and Applications Internet Activity

### ME1 QInequalities Investigations

1. Another way to solve a quadratic inequality such as  $ax^2 + bx + c > 0$  is to first solve the corresponding quadratic equation to determine the “boundary numbers,” then graph the corresponding function  $y = ax^2 + bx + c$ , and see where the graph of  $y$  is above the  $x$ -axis, or where  $y > 0$ . How could you use this method to solve  $ax^2 + bx + c \leq 0$ ?

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2. Solve  $x^2 + 4x < 5$  and  $2x^2 + 3x - 2 \geq 0$  using all three methods for solving quadratic inequalities (rules for integer multiplication, “boundary numbers,” and graphing).

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3. Which method do you prefer? Why?

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