PC11

Solving Quadratic Inequalities in One Variable

Practice

1. Solve $0 \leq (2x - 1)(3 + x)$

- The product of _____ is positive . Thus two distinct cases exist:

Case I: $(+)(+)$

Case II: $(-)(-)$

- Combining the solutions of the two cases, the overall solution is:

2. Solve $x^2 - 6x - 7 > 0$

- The product of _____ is positive . Thus two distinct cases exist:

Case I: $(+)(+)$

Case II: $(-)(-)$

- Combining the solutions of the two cases, the overall solution is:

3. Solve $x^2 + 3x - 28 \leq 0$

- The product of _____ is _____. Thus two distinct cases exist:

Case I: ( )( )

Case II: ( )( )

- Combining the solutions of the two cases, the overall solution is:

4. Solve $3x^2 - 4x - 2 \leq 30$

- The product of _____ is _____. Thus two distinct cases exist:

Case I: ( )( )

Case II: ( )( )

- Combining the solutions of the two cases, the overall solution is:

5. Solve $-x^2 \leq -36$

- The product of _____ is _____. Thus two distinct cases exist:

Case I: ( )( )

Case II: ( )( )

- Combining the solutions of the two cases, the overall solution is:

6. Solve $5x^2 + 30x > 0$

- The product of _____ is _____. Thus two distinct cases exist:

Case I: ( )( )

Case II: ( )( )

- Combining the solutions of the two cases, the overall solution is: