

Name: _____

Date: _____

When it won't factor, complete the square, then take $\pm$ the root. Great for 'simplest radical form.' Last two are challenge problems!

1. What completes $x^2 + 4x + \underline{\hspace{1cm}}$?

show your work

2. Solve $x^2 + 4x = 5$ by completing the square.

show your work

3. Solve $x^2 - 6x = 16$.

show your work

4. Solve $x^2 + 2x - 4 = 0$ (simplest radical form).

show your work

5. Solve $x^2 - 8x + 3 = 0$.

show your work

6. Solve $x^2 + 6x + 2 = 0$.

show your work

7. Solve $x^2 - 10x + 18 = 0$.

show your work

8. Solve $x^2 - 4x - 1 = 0$.

show your work

9. Solve $2x^2 - 8x - 6 = 0$ (divide by 2 first!). ★ CHALLENGE

show your work

10. Solve $x^2 + 5x + 2 = 0$ (fractional completing). ★ CHALLENGE

show your work