

Name: _____

Date: _____

$(a + b)(a - b) = a^2 - b^2$ - the middle terms cancel. Works both directions! Last two are challenge problems!

1. $(x + 3)(x - 3) = ?$

show your work

2. $(x + 7)(x - 7) = ?$

show your work

3. Factor $x^2 - 25$.

show your work

4. Factor $x^2 - 64$.

show your work

5. $(2x + 5)(2x - 5) = ?$

show your work

6. Factor $9x^2 - 16$.

show your work

7. Factor $100x^2 - 16$. (Trainer echo - Aug 2025 Q1!)

show your work

8. Why can't $x^2 + 25$ be factored the same way?

show your work

9. Factor $2x^2 - 50$ completely. ★ CHALLENGE

show your work

10. Compute 41×39 in your head using conjugates. ★ CHALLENGE

show your work