

Completing the Square

Put the following quadratic expressions in the form $a(x - h)^2 + k$ by completing the square.

Note: You must show all of your work to get full credit!

1. $x^2 + 12x - 10$

2. $x^2 - 8x + 14$

3. $x^2 + x - 1$

4. $x^2 - 100x + 100$

5. $x^2 + 7x + \frac{1}{2}$

6. $x^2 - \frac{x}{3} + 1$

7. $2x^2 - 16x + 8$

8. $5x^2 + 10x + 15$

9. $2x^2 + 5x + 1$

10. $3x^2 + 3x + 7$

11. $x^2 + x + 1$

12. $2x^2 + x + 1$

13. $10x^2 + 100x + 1000$

14. $3x^2 + 4x + 5$