Lesson 11.4 Practice: Completing the Square

School Launch · Algebra I · Unit 11: Quadratic Functions and Equations · Worksheet A

No calculator

Name _____ Date _____ Score _____ / 10

Show your work under each problem, one step per line, and check your answer. Word problems: name the unknown, write the equation, solve, and answer in a sentence with units.

1. What number completes the square: $x^2 + 8x + __$? Write the result as a square. EASY

2. What number completes the square: $x^2 - 16x + __$? Write the result as a square. EASY

3. What number completes the square: $x^2 + 4x + __$? Write the result as a square. EASY

4. Solve by completing the square: $x^2 + 12x + 34 = 0$. MEDIUM

5. Solve by completing the square: $x^2 - 2 = 0$. MEDIUM

6. Solve by completing the square: $x^2 + 8x + 14 = 0$. MEDIUM

7. Solve by completing the square: $x^2 - 2x - 4 = 0$. MEDIUM

8. Solve by completing the square: $x^2 - 2x - 8 = 0$. HARD

9. Solve by completing the square: $x^2 - 6x + 2 = 0$. HARD

10. Solve by completing the square: $x^2 - 4x - 5 = 0$. HARD