Name _____ Date _____ Class _____

TEKS A.10.A

LESSON 9-8

Practice B (CW)

Completing the Square

Complete the square to form a perfect square trinomial.

1. $x^2 + 4x + \boxed{4}$
2. $x^2 - 16x + \boxed{64}$
3. $x^2 + 7x + \boxed{\frac{49}{4}}$

Solve each equation by completing the square.

4. $x^2 + 6x = -8$
5. $x^2 + 4x = 12$
6. $x^2 - 2x = 15$

7. $x^2 - 8x + 13 = 0$
8. $x^2 + 6x + 34 = 0$
9. $x^2 - 2x - 35 = 0$

10. $2x^2 + 16x + 42 = 0$
11. $4x^2 - 7x - 2 = 0$
12. $2x^2 + 9x + 4 = 0$

13. A rectangular pool has an area of 880 ft^2. The length is 10 feet longer than the width. Find the dimensions of the pool. Solve by completing the square. Round answers to the nearest tenth of a foot.

14. A small painting has an area of 400 cm^2. The length is 4 more than 2 times the width. Find the dimensions of the painting. Solve by completing the square. Round answers to the nearest tenth of a centimeter.

Name _____ Date _____ Class _____

LESSON 9-8

Practice C

HW

Completing the Square

Complete the square to form a perfect square trinomial.

1. $x^2 + 50x$ _____

2. $x^2 + 34x$ _____

3. $x^2 + 80x$ _____

Solve each equation by completing the square.

4. $x^2 - 2x = 80$ _____

5. $x^2 - 7x = 18$ _____

6. $x^2 - 3x = 28$ _____

7. $x^2 + 10x + 35 = 0$ _____

8. $x^2 + 8x + 11 = 0$ _____

9. $x^2 + 2x - 6 = 0$ _____

10. $2x^2 + 4x - 70 = 0$ _____

11. $2x^2 + 9x + 4 = 0$ _____

12. $3x^2 + 20x + 12 = 0$ _____

13. A rectangular garden has an area of 432 ft^2. The length is 2 more than 3 times the width. Find the dimensions of the garden. Solve by completing the square. Round your answer to the nearest tenth of a foot.

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14. The height h in feet of a rocket launched off a roof is given by the equation $h = -16t^2 + 288t + 32$, where t is the time in seconds. After the rocket is launched, how long will it take to return to the ground? Solve by completing the square. Round your answer to the nearest tenth of a second.

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