CP Algebra 2

Unit 3 Quiz 1 Review

Name: _key_

Date: _____ Block: _____

Simplify the square root. Leave your answer in simplest radical form. (No decimals).

1. $\sqrt{18}$

$3\sqrt{2}$

2. $\sqrt{44}$

$2\sqrt{11}$

3. $\sqrt{121}$

11

4. $3\sqrt{75}$

$15\sqrt{3}$

5. $5\sqrt{32}$

$20\sqrt{2}$

6. $4\sqrt{49}$

28

Find the value of "c" that makes the expression a perfect square trinomial.
Then write the expression as a square of a binomial.

7. $x^2 + 12x + c$

$36; (x+6)^2$

8. $x^2 - 20x + c$

$100; (x-10)^2$

9. $x^2 + 10x + c$

$25; (x+5)^2$

10. $x^2 - 14x + c$

$49; (x-7)^2$

11. $x^2 + 5x + c$

$\frac{25}{4}; (x+\frac{5}{2})^2$

12. $x^2 - 9x + c$

$\frac{81}{4}; (x-\frac{9}{2})^2$

Solve. Leave your answer in simplest radical form.

13. $x^2 - 100 = 0$

$x = \pm 10$

14. $x^2 - 9x + 14 = 0$

$x = 2, 7$

15. $x^2 - 4x = 5$

$x = -1, 5$

16. $3x^2 - 8x = -4$

$x = 2, \frac{2}{3}$

17. $x^2 + 12x = -36$

$$X = -6$$

18. $3x^2 + 24x + 45 = 0$

$$X = -5, -3$$

19. $(x - 9)^2 = 49$

$$X = 2, 16$$

20. $x^2 - 9x = 0$

$$X = 0, 9$$

21. $3x^2 + 2x - 1 = 0$

$$X = \frac{1}{3}, -1$$

22. $x^2 + 1 = -4x$

$$X = -2 \pm \sqrt{3}$$

23. $3x^2 = 48$

$$X = \pm 4$$

24. $x^2 + 20x + 100 = 5$

$$X = -10 \pm \sqrt{5}$$

25. $x^2 + 12x + 4 = 0$

$$X = -6 \pm 4\sqrt{2}$$

26. $x^2 + 25 = 10x$

$$X = 5$$

27. $15x^2 + 19x = -6$

$$X = \frac{-3}{5}, \frac{-2}{3}$$

28. $2x^2 - 13x = 7$

$$X = \frac{-1}{2}, 7$$

29. $x^2 + 21 = -10x$

$$X = 3, 7$$

30. $x^2 + 3x - 8 = 0$

$$X = \frac{-3 \pm \sqrt{41}}{2}$$