Algebra 2/Trig-H Algebra Review—Quadratics Name_____

Period_____ Column_____

***SHOW WORK NEATLY* Give exact answers in simplest form—no decimals.**

Use factoring to solve each equation.

1. $x^2 - 7x - 60 = 0$

2. $2x^2 - x - 3 = 0$

3. $2x^2 + 26x + 80 = 0$

4. $4x^2 + 56x + 196 = 0$

Use square roots to solve each equation.

5. $2x^2 = 144$

6. $\frac{2}{3}x^2 - 8 = 16$

7. $2(x+3)^2 = 8$

8. $5(x-4)^2 = 40$

Answers: 1. 12, -5 2. $\frac{3}{2}$, -1 3. -5, -8 4. -7 5. $\pm 6\sqrt{2}$ 6. ± 6

7. -5, -2 8. $4 \pm 2\sqrt{2}$

Use the quadratic formula to solve each equation. $x = \dfrac{-b \pm \sqrt{b^2 - 4ac}}{2a}$

9. $x^2 - 6x = -4$

10. $2x^2 + 4x - 5 = 0$

11. $10x^2 + 29x = 21$

12. $4x^2 - 8x - 3 = 0$

Use completing the square to solve each equation.

13. $x^2 + 8x = 128$

14. $x^2 + 3x - 7 = 0$

15. $2x^2 - 12x - 560 = 0$

16. $4x^2 - 48x + 16 = 0$

Answers: 9. $3 \pm \sqrt{5}$ 10. $\dfrac{-2 \pm \sqrt{14}}{2}$ 11. $\dfrac{-7}{2}, \dfrac{3}{5}$ 12. $\dfrac{2 \pm \sqrt{7}}{4}$ 13. -16, 8

14. $\dfrac{-3 \pm \sqrt{37}}{2}$ 15. 14, -20 16. $6 \pm 4\sqrt{2}$