Good Luck to Key Date _____ PD ___

Solving Quadratics Quiz Review CYU

☑ *Use when you get it right all by yourself*

S *Use when you did it all by yourself, but made a silly mistake*

H *Use when you could do it alone with a little help from teacher or peer*

G *Use when you completed the problem in a group*

X *Use when a question was attempted but wrong (get help)*

N *Use when a question was not even attempted*

CONCEPTS	BASIC	INTERMEDIATE	ADVANCED
Square Root Method	1, 2	3, 4	
Completing the Square		5, 6	7, 8
Quadratic Formula	9	10	11, 12
Factoring	13	14, 15	16
Solving quadratics		17	18 - 20

Show all work to earn full credit. Follow the directions when solving to earn full credit for the correct method.

1 – 4: Use the **square root** method to solve each equation.

1. $x^2 - 10 = 0$

$X = \pm\sqrt{10}$

2. $x^2 - 14 = 0$

$X = \pm\sqrt{14}$

3. $(x-1)^2 = 8$

$X = 1 \pm 2\sqrt{2}$

4. $(x+5)^2 = 12$

$X = -5 \pm 2\sqrt{3}$

5 – 8: Solve each equation by **completing the square.**

5. $x^2 + 2x - 12 = 0$

$X = -1 \pm \sqrt{13}$

6. $x^2 - 12x + 11 = 0$

$X = 11, 1$

7. $3x^2 + 3x = 5$

$X = -\frac{1}{2} \pm \sqrt{2}$

8. $16y^2 + 16y = 1$

$y = -\frac{1}{2} \pm \frac{\sqrt{5}}{4}$

9 – 12: Use the **quadratic formula** to solve each equation.

9. $2x^2 - 4x + 1 = 0$

$X = \frac{2 \pm \sqrt{2}}{2}$

10. $\frac{1}{2}x^2 + 3x + 2 = 0$

$X = -3 \pm \sqrt{5}$

11. $x^2 + 4x = -7$

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

12. $x^2 + x = -3$

$X = -\frac{1}{2} \pm \frac{i\sqrt{11}}{2}$

13 – 16: Solve each equation by **factoring**.

13. $x^2 + 3x + 6 = 0$

$X = \frac{-3 \pm i\sqrt{15}}{2}$

14. $2x^2 + 18 = 0$

$X = \pm 3i$

15. $x^2 + 17x = 0$

$X = 0, -17$
or
$\{0, -17\}$

16. $4x^2 - 2x - 3 = 0$

$X = \frac{1 \pm \sqrt{13}}{4}$

17 – 20: Solve each equation using the **method of your choice.**

17. $(x-2)^2 = 27$

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

18. $\frac{1}{2}x^2 - 2x + \frac{1}{2} = 0$

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

19. $x(x-2) = 5$

$X = \frac{4}{3}, -2$

20. $2x^2 = -5x - 1$

$X = \frac{-5 \pm \sqrt{17}}{4}$

CYU Reflection: *How far can you go: basic, intermediate, or advanced?*

Rate your mastery level!

How confident are you with the skills this CYU covered? Circle the score you would give yourself.