Name Key Date _____ Pd _____

3.4 Using the Quadratic Formula DAY ONE 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
Finding a, b, c	1 - 6	10 - 14	15 - 18
Converting to standard form	10 - 14	15 - 18	
Plugging a, b, c into quadratic formula	1 - 6	10 - 14	15 - 18
Simplifying quadratic formula	1 - 7	8, 16 - 18	9 - 15

Solve each equation with the quadratic formula.

1. $m^2 \quad 5m - 14 = 0$

$m = -2, 7$

2. $b^2 - 4b + 4 = 0$

$b = 2, 2$

3. $2m^2 + 2m - 12 = 0$

$m = -3, 2$

4. $2x^2 - 3x - 5 = 0$

$x = \frac{5}{2}, -1$

5. $x^2 + 4x + 3 = 0$

$x = -3, -1$

6. $2x^2 + 3x \quad 20 = 0$

$x = \frac{5}{2}, -4$

7 $4b^2 + 8b + 7 = 4$

$b = -\frac{3}{2}, -\frac{1}{2}$

8. $2m^2 - 7m - 13 = -10$

$m = \frac{7 \pm \sqrt{73}}{4}$

9. $2x^2 - 3x - 15 = 5$

$x = 4, -\frac{5}{2}$

10. $x^2 + 2x - 1 = 2$

$x = -3, 1$

11. $2k^2 + 9k = -7$

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

12. $5r^2 = 80$

$r = -4, 4$

13. $2x^2 - 36 = x$

$x = \frac{9}{2}, -4$

14. $5x^2 + 9x = -4$

$x = -\frac{4}{5}, -1$

15. $k^2 - 31 \quad 2k = -6 - 3k^2 - 2k$

$k = \frac{5}{2}, -\frac{5}{2}$

16. $9n^2 = 4 + 7n$

$n = \frac{7 \pm \sqrt{193}}{18}$

17 $8n^2 + 4n - 16 = -n^2$

$n = \frac{-2 \pm \sqrt{37}}{9}$

18. $8n^2 + 7n - 15 = 7$

$n = \frac{-7 \pm \sqrt{305}}{16}$

19. Pick any two problems and prove that your answer is correct by showing the value of the discriminant gives those answers.

$b^2 - 4ac$ answers will vary

number & type of solution

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