

Solving Quadratics by Factoring 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
Solving Quadratics by factoring	1 - 4	5 - 8, 11, 14	9, 10, 12, 13, 15, 16
a = 1	5 - 8	11, 14	
a not 1		9, 10	12, 13, 15 - 22
Already as factors	1 - 4		

I. First way: Factoring. Solve each equation by factoring. Show all work to earn full credit.

1. $(k + 1)(k - 5) = 0$

$k = -1, 5$

6. $n^2 + 7n + 15 = 5$

$n = -5, -2$

2. $(a + 1)(a + 2) = 0$

$a = -1, -2$

7. $p^2 - 10p + 22 = -2$

$p = 6, 4$

3. $(4m + 5)(m + 1) = 0$

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

8. $q^2 + 3q - 12 = 6$

$q = 3, -6$

4. $(2v + 3)(4v + 3) = 0$

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

9. $6j^2 - 18j - 18 = 6$

$j = 4, -1$

5. $x^2 - 11x + 19 = -5$

$x = 3, 8$

10. $7r^2 - 14r = -7$

$r = 1$

11. $n^2 + 8n = -15$

$$n = -5, -3$$

17. $7d^2 - 6d + 3 = 3$

$$d = \frac{6}{7}, 0$$

12. $5r^2 - 44r + 120 = -30 + 11r$

$$r = 6, 5$$

18. $35a^2 - 22a + 7 = 4$

$$a = \frac{1}{5}, \frac{3}{7}$$

13. $-4k^2 - 8k - 3 = -3 - 5k^2$

$$k = 8, 0$$

19. $7x^2 + 2x = 0$

$$x = -\frac{2}{7}, 0$$

14. $b^2 + 5b - 35 = 3b$

$$b = -7, 5$$

20. $10b^2 = 27b - 18$

$$b = \frac{3}{2}, \frac{6}{5}$$

15. $3w^2 - 16w - 7 = 5$

$$w = -\frac{2}{3}, 6$$

21. $8x^2 + 21 = -59x$

$$x = -\frac{3}{8}, -7$$

16. $6c^2 - 13c + 3 = -3$

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

22. $15a^2 - 3a = 3 - 7a$

$$a = \frac{1}{3}, -\frac{3}{5}$$

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.

●	●	●	●	●	●	●	
1	2	3	4	5	6	7	8
Basic		Intermediate			Advanced		Solved ALL!
