

**3.1 Solving Quadratics by Factoring CYU DAY ONE**

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

$\{3, 8\}$  {solution set}  
Same as  $x =$

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

$r = 1$



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

$$n = -5, -3$$

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

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

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

$$r = 6, 5$$

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

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

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

$$k = 8, 0$$

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

$$\left\{ -\frac{2}{7}, 0 \right\}$$

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

$$b = -7, 5$$

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

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

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

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

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

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

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

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

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

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

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**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.

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1	2	3	4	5	6	7	8
Basic		Intermediate			Advanced		