

## 3.3 Completing the Square 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 "c"	1 - 4		
Solving by Completing the Square		5 - 7	8
Converting from Standard Form to Vertex Form		9, 10, 12	11
Identifying the Vertex & Axis of Symmetry	9 - 12		

**Determine what should go in the square.**

1)  $y = x^2 + 4x + \square$

2)  $y = x^2 - 2x + \square$

3)  $f(x) = x^2 + 6x + \square$

4)  $f(x) = x^2 - 9x + \square$

**Solve by Completing the Square.**

5)  $x^2 + 4x = 5$

6)  $0 = x^2 - 2x + 2$

7)  $0 = x^2 + 6x - 10$

8)  $-5 = -2x^2 - 4x$

Convert from Standard form ( $y = ax^2 + bx + c$ ) to Vertex form ( $y = a(x - h)^2 + k$ ).  
Then identify the vertex and axis of symmetry.

9)  $0 = x^2 - 2x + 2$

10)  $0 = -x^2 + 6x - 10$

11)  $0 = 2x^2 + 4x - 3$

12)  $x^2 + 20x + 90 = 0$

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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

