

WU - BATTERED &
- GOOD TO HAVE
THAN SOME
AND

Section/Lesson Title: SOLVING BY COMPLETING THE SQUARE

Materials: WS

HW# 3.4 WS

Reflections:

I COMPLETING THE SQUARE - STRATEGY #2 SOLVING QUADRATICS

1) $(x+3)^2 = x^2 + 6x + 9$
 $(x-4)^2 = x^2 - 8x + 16$

2) COMPLETE A QUADRATIC SQUARE

$x^2 - 4x + \underline{\quad} = (\quad)^2$

$x^2 + 12x + \underline{\quad} = (\quad)^2$

$x^2 - 10x + \underline{\quad} = (\quad)^2$

$x^2 - 5x + \underline{\quad} = (\quad)^2$

ALWAYS ADD
LAST #

3) SOLVING

$x^2 - 4x + 2 = 0$ DOESN'T FACTOR

$x^2 - 4x + \underline{\quad} = -2 + \underline{\quad}$

$x^2 - 4x + 4 = -2 + 4$

$(x-2)^2 = 2$

$x-2 = \pm\sqrt{2}$

$\boxed{x = 2 \pm \sqrt{2}}$ Two solutions, both irrational

TRY: $x^2 + 6x - 16 = 0 \rightarrow$ DOESN'T WORK AS $x = -3 \pm 5$:)

$x^2 + 10x = 0$

$x^2 + 7x - 2 = 0$

$2x^2 - 20x + 16 = 0$