

Day 7 Hw: Complete the square

Rewrite each equation in vertex form.

1. $y = x^2 + 8x + 12$

$(x^2 + 8x + 16) + 12 - 16$

Vertex Form:

$(x + 4)^2 - 4$

$\frac{8}{2} = 4^2 = 16$

2. $y = x^2 + 4x - 5$

Vertex Form:

$(x + 2)^2 - 9$

$\frac{4}{2} = 2^2 = 4$

3. $y = x^2 - 12x$

Vertex Form:

$(x - 6)^2 - 36 = 36$

$-\frac{12}{2} = -6^2$

4. $x^2 - 10x = 24$

Vertex Form:

$(x - 5)^2 - 49$

$x^2 - 10x - 24 = y$
 -25

$\frac{-10}{2} = -5^2$