

Solving by Completing the Square

Name: _____

Solve each equation.

1) $(x + 6)^2 - 13 = 0$

2) $-4(x + 1)^2 + 5 = -22$

Solve each equation by completing the square and then setting $y = 0$.

3) $y = x^2 - 8x + 5$

4) $y - 4 = x^2 + 12x$

5) $y + 12x = 3x^2 - 7$

6) The number of people at a block party at a given time is modeled by the equation $P(t) = -7t^2 + 21t + 84$. Solve by completing the square to determine the time, t in hours, when there are 42 people at the block party.