

1. Solve the following equations by completing the square.

a. $y^2 - 4y = -3$

c. $2t^2 - 2t - 5 = 0$

b. $r^2 + 8r + 8 = 0$

d. $3r^2 - 2r - 1 = 0$

2. Complete the square of the following functions in order to put them into vertex form.

a. $f(x) = x^2 - 14x + 52$

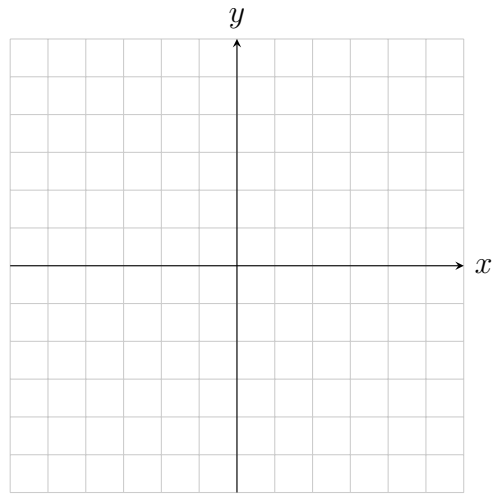
c. $h(x) = 6x^2 - 12x - 2$

b. $g(x) = x^2 - 5x + 2$

d. $k(x) = -5x^2 + 10x - 8$

3. Complete the square of the following functions to put them into vertex form, find the vertex, whether it opens up or down, the y -intercept, the y -intercept's mirror point, and then graph the function.

a. $f(x) = -x^2 - 18x - 71$



a. $g(x) = 4x^2 + 40x + 95$

