MATH 2D Review: Linear and Quadratic Curves

1. Let $\mathcal{C}$ be the curve such that a point $P(x, y)$ is on $\mathcal{C}$ if and only if the distance from P to the line $x = -1$ is equal to the distance from P to the point $F(1, 0)$. Find an equation for the curve $\mathcal{C}$, and sketch the curve. What is the name of the curve?
   (Hint: Use the given information to set up an equation that x and y must satisfy)

2. Sketch the curve $\mathcal{C} : x^2 - 4x + 4y^2 = 0$ and write down the coordinates of at least 3 points on the curve. What is the name of this curve?