Parametric Curves in the Plane

1. Line segment from $(3,5)$ to $(-4,1)$.

$$x = 3 + (-4-3)t = 4 - 7t$$
$$y = 5 + (1-5)t = 5 - 4t, \quad 0 \le t \le 1$$

2. Circle with center $(1,-3)$ and radius 5.

$$x = 1 + 5\cos(t)$$
$$y = -3 + 5\sin(t), \quad 0 \le t \le 2\pi$$