

**2.** (6 points) Write a parametrization for each of the following curves in the  $xy$ -plane.

(a) The circle of radius 2, centered at the origin, traced clockwise, and starting from  $(-2, 0)$  when  $t = 0$ .

(b) The line passing through the points  $(2, -1)$  and  $(1, 3)$ .

**3.** (5 points)

(a) Briefly explain the difference between the indefinite integral  $\int f(x) dx$  and the (proper) definite integral  $\int_a^b f(x) dx$ .

(b) What is a Riemann sum and how is it related to one or more of the integrals in part (a)?