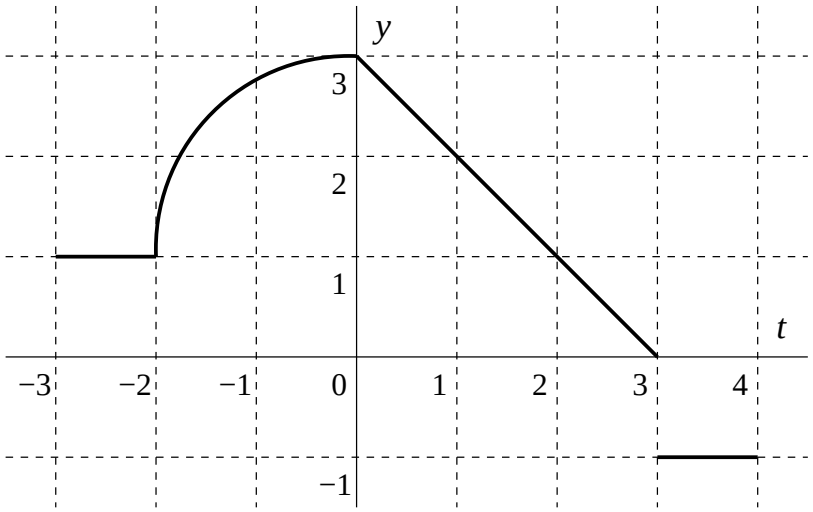
Problem statement Below is the graph of a function f whose domain is $[-3, 4]$. The graph is made of straight line segments, except for that part of the graph between -2 and 0 which is a quarter circle centered at $(0, 1)$.



Suppose F is defined by $F(x) = \int_0^x f(t)\,dt$. Sketch the graph of F as well as possible. Where are the x-intercepts of F? Where is F continuous? Where is F differentiable? Where is F increasing? decreasing? Concave up? Concave down? Relate all these answers to the graph of f.