**Problem statement** The graph of f is shown to the right. The function F(x) is defined by  $F(x) = \int_0^x f(t) dt$  for  $0 \le x \le 4$ .

- a) Find F(0) and F(3).
- b) Find F'(1).
- c) For what value of x does F(x) have its maximum value? What is this maximum value?

