5. Let \( f(t) \) be given by: 

![Graph of f(t)](image)

Graph \( f'(t) \).

6. Let \( g(x) \) be the function graphed below.

![Graph of g(t)](image)

This function is constructed from circular arcs of radius 2.

Let \( F(x) = \int_0^x g(t) \, dt \). 

a) Find \( F(0) = \) \( F(2) = \) \( F(4) = \) \( F(6) = \) and \( F(8) = \) 

b) Graph \( F(x) \).

c) Find all \( x \) so that \( F'(x) = 0 \).

d) Find \( F''(4) \).