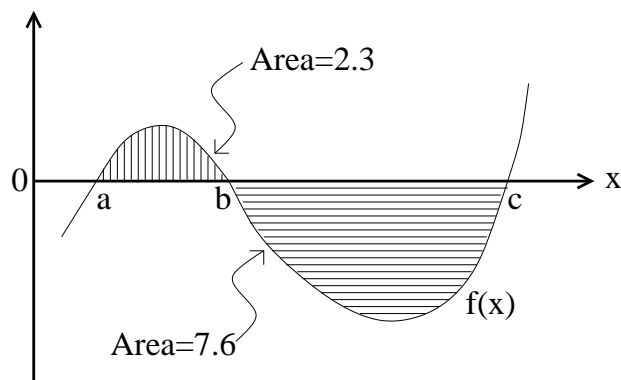


6. (8 points) Use the figure below to calculate the numerical values of the definite integrals in parts (a) through (d). You need not show your reasoning.



(a) $\int_a^b f(x) dx =$ _____

(b) $\int_b^c f(x) dx =$ _____

(c) $\int_a^c f(x) dx =$ _____

(d) $\int_b^a f(x) dx =$ _____

7. (8 points) An isosceles triangle has a base of length 8 meters. If θ denotes the angle opposite one of the two equal sides, and if θ is increasing at a constant rate of 0.1 radians per second, how fast is the area of the triangle increasing when $\theta = \pi/6$?

