(1) Figure 1 gives the graph of a function \( y = f(x) \). Compute the average value of \( f \) between \( x = 4 \) and \( x = 10 \).

Average = \[ \frac{1}{10-4} \int_{4}^{10} f(x) \, dx \]  
Average Value = \[ \frac{5.5}{6} = 0.916666\ldots \]

(2) Compute the antiderivatives of the following:
(a) \( f(x) = 5x^3 + 3x^2 + 1 \)  
\[ F(x) = \frac{5}{4} x^4 + \frac{3}{2} x^3 + x \]

(b) \( g(t) = 3\sqrt{t} = 3t^{\frac{1}{2}} \)  
\[ G(t) = \frac{2}{3} t^{\frac{3}{2}} \]

(c) \( h(s) = \frac{3}{s^2} = 3s^{-2} \)  
\[ H(s) = -3s^{-1} = -\frac{3}{s} \]