

(1) [7 points] Let $f(x) = 3 + 4x - x^2$. Evaluate and simplify the difference quotient

$$\frac{f(4+h) - f(4)}{h}$$

(2) [8 points] An open rectangular box has a volume of 5 m^3 and a square base of side length x . Express the surface area S of the box as a function of x .