Additional Questions for Homework on Section 5.6.

A. If f is continuous and $\int_0^4 f(x)\,dx = 10$, find $\int_0^2 f(2x)\,dx$.

B. If f is continuous and $\int_0^{16} f(x)\,dx = 17$, find $\int_0^4 xf(x^2)\,dx$.

C. If f is a continuous even function and $\int_0^{27} f(x)\,dx = 5$, find $\int_{-27}^{27} f(x)\,dx$ and $\int_{-3}^3 x^3 f(x)\,dx$.

D. If f is a continuous odd function and $\int_{-1}^5 f(x)\,dx = 10$ and $\int_0^5 f(x)\,dx = 7$, find $\int_{-5}^5 f(x)\,dx$, $\int_1^5 f(x)\,dx$, and $\int_{-1}^1 f(3x+2)\,dx$.