

Sections 5.5: Additional Problems

Compute

1) $\int x^3(x^2 - 1)^4 dx =$

2) $\int (12x^2 + 8)(x^3 + 2x)^6 dx$

3) $\int \frac{1 - 3x^2 e^{(1-x^3)}}{x + e^{(1-x^3)}} dx$

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

5) $\int_0^{\pi/3} \sin(\theta) \cos^2(\theta) d\theta =$

6) $\int \cos(kx) dx$

7) $\int \sin(kx) dx$