

5.5 S1. $\int x^2(\sin x^3)e^{\cos x^3} dx$

5.5 S2. $\int \frac{x^4 (\ln(13x^5 + 1))^7}{13x^5 + 1} dx$

5.5 S3. Find a suitable choice of k and then integrate $\int x^k e^{x^5} \cos e^{x^5} dx$