

Quiz 2 M106 Section 21813

Q1) Evaluate $\int x \sin(9x) dx$

Q2) Evaluate $\int \cos^3(x) \sin^{10}(x) dx$

Q3) The partial fraction decomposition of $\frac{7x - 24}{(x - 3)(x - 4)}$ is $\frac{A}{x - 3} + \frac{B}{x - 4}$. Find A and B

Q4) Evaluate $\int \frac{dx}{4 + 4 \cos(x) + 3 \sin(x)}$

Q5) Determine whether the improper integral $\int_0^{\infty} x^9 e^{-x^{10}} dx$ converges or diverges. Find its value in case it converges.