

Quiz 2 M106 Section 33108

Q1) Evaluate $\int x \cos(8x) dx$

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

Q3) The partial fraction decomposition of $\frac{5x - 12}{(x - 3)(x - 2)}$ is $\frac{A}{x - 2} + \frac{B}{x - 3}$.

Find A and B

Q4) Evaluate $\int \frac{dx}{8 + 8 \cos(x) + 3 \sin(x)}$

Q5) Determine whether the improper integral $\int_0^{\infty} x^5 e^{-x^6} dx$ converges or diverges. Find its value in case it converges.