

Midterm

The Midterm comprises 2 questions:

1. indefinite integral on by parts and substitution (7 points)
2. definite integral on partial fractions (8 points)

Students have 60 minutes and can use any literature (notes, tables, textbooks...), but no technical devices (phone, calculator, watches...).

Example of midterm questions

1. (8 points) Find the primitive function (do not forget on conditions):

$$\int \frac{9x^3 - 56x^2 + 17x - 10}{(x-3)(x+2)(3x^2 - 2x + 1)} dx$$

2. (7 points) Compute the definite integral

$$\int_0^{\ln \pi} \sin(e^x) \cos(2e^x) e^x dx$$