Test 2 Version B (4:10 pm – 6:00 pm) – SOLUTIONS

A1. [**2 marks**] Write a possible value of b for which the following integral will be an **improper integral**. If there is no such value, write "Not possible".

$$\int_1^4 \frac{1}{x-b}dx$$

Solution: b can be any number between 1 and 4, including but not limited to 1, 1.1, 2, 3.5, and 4.

A2. [**2 marks**] If it converges, evaluate $\int_1^\infty 4xe^{-x^2}dx$ and write its value in the box below. If the integral does not converge, write "does not converge".