

TASK

- Do this task in a group of max 4 students (could be less than 4 students but cannot more than 4 students; you can choose your own team).
- Do the following on a piece of paper with pen (not pencil), **handwritten**.
- Provide full steps to gain full marks
- Put your FULL names and ID numbers (of all the members)
- Scan it or screenshot it.
- Save it as “pdf” file
- **Groupwork. One group, one submission.**

Given $f(x) = e^{-x^2}$, $0 \leq x \leq 1$

Find $\int_0^{\pi} f(x) dx$, 4 d.p using:

- a. composite trapezoidal 2 and 4 panels
- b. composite Simpson's 1/3, 4 panels
- c. composite Simpson's 3/8, 3 panels
- d. Romberg integration using the result of part (a)