Quiz 2

(1) Approximate the integral:

$$\int_1^3 \frac{x^2}{x^2+1}\, dx$$

using a right-handed Riemann sum with 6 endpoints. Leave your answer as an unsimplified sum of 6 terms.

(2) Use the fundamental theorem of calculus to evaluate: $\frac{d}{dx}(\int_0^{\tan^x} e^{-t^2}\, dt)$