Math 3280 Worksheet 1: Calculus review.
All worksheets are due at the end of the next given lecture.

Group members (2 to 4): _____

Only hand in 1 sheet per group - individual papers will not be graded.

(1) Calculate the second derivative of $f(t) = t^2 \cos(3t)$.

(2) Find the antiderivative of te^t by integrating by parts.

(3) Compute the integral $\int_0^1 \frac{2}{x^2+x} \, dx$ by decomposing the integrand into partial fractions.