Answer all questions and show your work. Unsupported answers may receive *no credit*. You may not use a calculator on this quiz. Allow 15 minutes for the quiz.

Name: ———————————————————   Section: ———————————————————

1. (a) (5 points) Find the partial fraction decompositon of

$$\frac{x^2 - 3x + 1}{x^3 + x}$$

and solve for the coefficients.

(b) (5 points) Use the trapezoid rule to estimate the integral $\int_1^4 x^2 \, dx$ using three steps, i.e. compute T_3. You do not need to simplify your answer.