

Calculus II. Quiz 4. Name _____ Time _____

Show all work on this page for full and/or partial credit. Put a box around your final answers in each part.

1. Show the correct form for the partial fraction decomposition. Don't find the numerical values of the variables A,B,etc. Hint, $x = 1$ makes the denominator 0, so $(x - 1)$ is a factor of the denominator.

$$\frac{x^2 + 5x - 1}{x^3 + x^2 - 2}$$

2. Now solve the partial fraction decomposition: same fraction as in the previous question, but this time find the values of A,B,etc.

3. Find the indefinite integral. You must show the partial fraction method as steps in the solution.

$$\int \frac{x^3 + 10x^2 + 8x + 11}{(x + 3)(2x + 1)(x^2 + 1)} dx$$