Name _____

Homework 4
Section 7.4

Evaluate each of the following integrals. To receive credit, you must actually perform the integration, not simply use a table of integrals. The exception being that you may use the formula for $\int \sin^2 x \, dx$ or $\int \cos^2 x \, dx$ given on the handout without justification.

1. (5) $\displaystyle\int \frac{4x^2 - 5x - 15}{x^3 - 4x^2 - 5x} \, dx$ Write your answer as $\ln(f(x)) + C$ for some function $f(x)$.

2. (5) $\displaystyle\int \frac{1}{(1-t^2)^{3/2}}\,dt$

3. (5) $\displaystyle\int \frac{x^4 + x^3 + x^2 + x + 2}{x^4 + x^2}\, dx$

4. (5) $\displaystyle\int \frac{16}{x^3\sqrt{x^2-4}}\,dx$