

4. Write the terms for the partial fraction decomposition of the rational function.

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

8. Use inverse matrices to find the partial fraction decomposition.

$$\frac{4x+4}{x^2(x+2)} = \frac{A}{x} + \frac{B}{x^2} + \frac{C}{(x+2)}$$

12. Use the reduced row echelon form for the augmented matrix to find the partial fraction decomposition.

$$\frac{-x^3 - 6x^2 - 5x + 87}{(x-1)^2(x+4)^2} = \frac{A}{(x-1)} + \frac{B}{(x-1)^2} + \frac{C}{(x+4)} + \frac{D}{(x+4)^2}$$

Partial Fractions

4-9-08

16. Find the partial fraction decomposition. Confirm your answer algebraically by combining the partial fractions.

$$\frac{6}{x^2 - 9}$$