

Name: _____

Aim: Practice with Partial Fraction Decomposition

I. Do Now:

1. Set up the partial fraction decomposition for each rational expression, but do NOT solve for the constants.

(a) $\frac{6x^2 - 14x - 27}{(x+2)(x-3)^2}$

(c) $\frac{x^4 + 8}{x^3 + 2x}$

(b) $\frac{5x^2 - 9x + 19}{(x-4)(x^2 + 5)}$

(c) $\frac{x^3 + x^2}{x^3(x^2 + 4)^2}$

II. Decompose:

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

3. $\frac{x^3}{x^2 - 4x + 4}$

4. $\frac{x^3}{(x^2 + 16)^2}$

5. $\frac{x^2 + 4x}{x^3 - 8}$