

## PARTIAL FRACTIONS

BLAKE FARMAN

*Lafayette College*

Name: \_\_\_\_\_

Evaluate the following integrals

CASE I

1.  $\int \frac{x^4}{x-1} dx$

2.  $\int \frac{5x + 1}{(2x + 1)(x - 1)} dx$

3.  $\int \frac{2}{(2x+1)(x+1)} dx$

## CASE II

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

## CASE III

5.  $\int \frac{6x^2 - 2}{(x + 1)(x - 1)(x^2 + 1)} dx$

## CASE IV

6.  $\int \frac{x^3 + 2x^2 + 3x - 2}{(x^2 + 2x + 2)^2} dx$