Calculus

Name: Date:

7C Exercises

Extrema on an Interval

Write the form of the partial fraction decomposition of the rational expression. Do not solve for the constants.

1. $\dfrac{4}{x^2 - 8x}$

3. $\dfrac{2x - 3}{x^3 + 10x}$

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

Use Partial Fractions to find the Integral.

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

Larson section 8.5

13. $\int \frac{x^2 + 12x + 12}{x^3 - 4x}\, dx$

19. $\int \frac{x^2 + 3x - 4}{x^3 - 4x^2 + 4x}\, dx$

Note: this has a repeated factor. So, your denominators in your partial fractions will be $x, (x-2), and\ (x-2)^2$