

HW 15: Section 6.4

Due: Thursday, October 31st in SQRC by 9pm

Learning Goals:

- Compute integrals using the method of partial fractions.
- Combine all our current integration techniques when solving integrals.

Questions:

Solve the integrals:

1. Problem 6.4.2

$$\int \frac{5x - 2}{x^2 - 4} dx$$

2. Problem 6.4.6

$$\int \frac{3x + 8}{x^3 + 5x^2 + 6x} dx$$

3. Problem 6.4.10

$$\int \frac{4x - 5}{x^3 - 3x^2} dx$$

4. Problem 6.4.12

$$\int \frac{1}{x^3 + 4x} dx$$

5. Problem 6.4.16

$$\int \frac{2x}{x^2 - 6x + 9} dx$$