Reading Assignment # 5

Math 9 - Prof. Orellana

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Read Sections 8.4 and answer the following questions.

1. Describe the objective of Section 8.4.

2. How many different cases do we have to consider when integrating using partial fractions? Why do we only consider these cases?

3. Describe the algorithm for integrating $\frac{p(x)}{q(x)}$ in case I.

4. What is the difference between case I and case II?

5. What do Case I and Case III have in common? What about case II and case IV?

6. Starting with an arbitrary rational function $\frac{p(x)}{q(x)}$ draw a flow chart to explain the steps that you must take to integrate this rational function. Don't forget to include the case when the degree of p(x) is greater than $q(x)$.