

# 1. Introduction

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➤ Area, Volume, center of gravity, force uses integrals, e.g.  $\int_a^b f(x) \sqrt{1 + f'(x)^2} dx$ .

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- Mathematics is most fun when you go to your limit.

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- Parallel: learn integration techniques.

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2) You will have to learn the standard tricks-and exercise them.

3) I remember integration by parts, substitution, knowledge of special functions, and good tables of known integrals as my only help.

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**HW:**