

# MC Test Topics Chapter 6 Fri 3/10

## 6.2

- Basic rules of integration
- Indefinite integrals
- Properties of indefinite integrals
- Initial value problem

## 6.3

- Substitution for indefinite integrals
- Less apparent substitutions
- Integrals of inverse trig functions
- Initial value problem with substitution

## 6.4

- Riemann Sums
- Sigma Notation

## 6.5/6.6

- First Fundamental Theorem of Calculus
- Net signed area versus total area
- Average Value
- Second Fundamental Theorem of Calculus
- Functions defined by an integral
- Definite integrals of absolute value functions
- Definite integrals of piecewise functions
- Find area under the curve over an interval
- Displacement and total distance traveled given velocity function (6.7)

## 6.8

- Definite integrals using substitution

## 6.9

- Initial value problem the integral approach
- Displacement and total distance traveled given velocity function or acceleration function (6.7)