

# 308 notes 3.1-3.5

Tony Deng

September 20, 2021

## 1 Conservation of Momentum

Conservation of momentum for one body is just Newton's first law.

## 2 Rockets

I wonder what does "exhaust speed" mean. Also derivation to the thrust is beautiful.

## 3 Center of Mass

A boring section. Yet, the place where generalized Newton's second law to a multi-bodied system is alright.

## 4 Angular Momentum

The angular momentum is relative to the choice of origin.

The derivation on Kepler's second law is interesting.

## 5 Angular Momentum for Several Particles.

Replacing "force" by "torque," else feels similar to linear system.