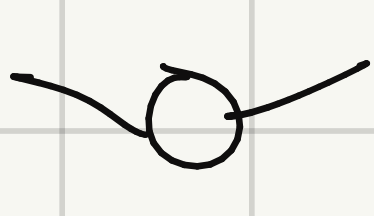
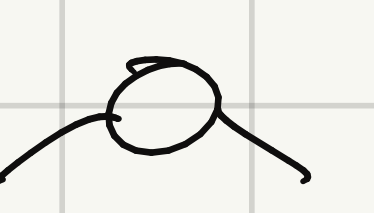


8/29/24

Wing Types & Parameters

Def.  Anhedral \leftarrow Positive direction
 Dihedral \leftarrow negative direction

757

~~747~~
747

0.8655

\oplus of mass

\oplus of pressure, where lift and drag are acting

l_t = tail length

\oplus mass

\oplus pressure

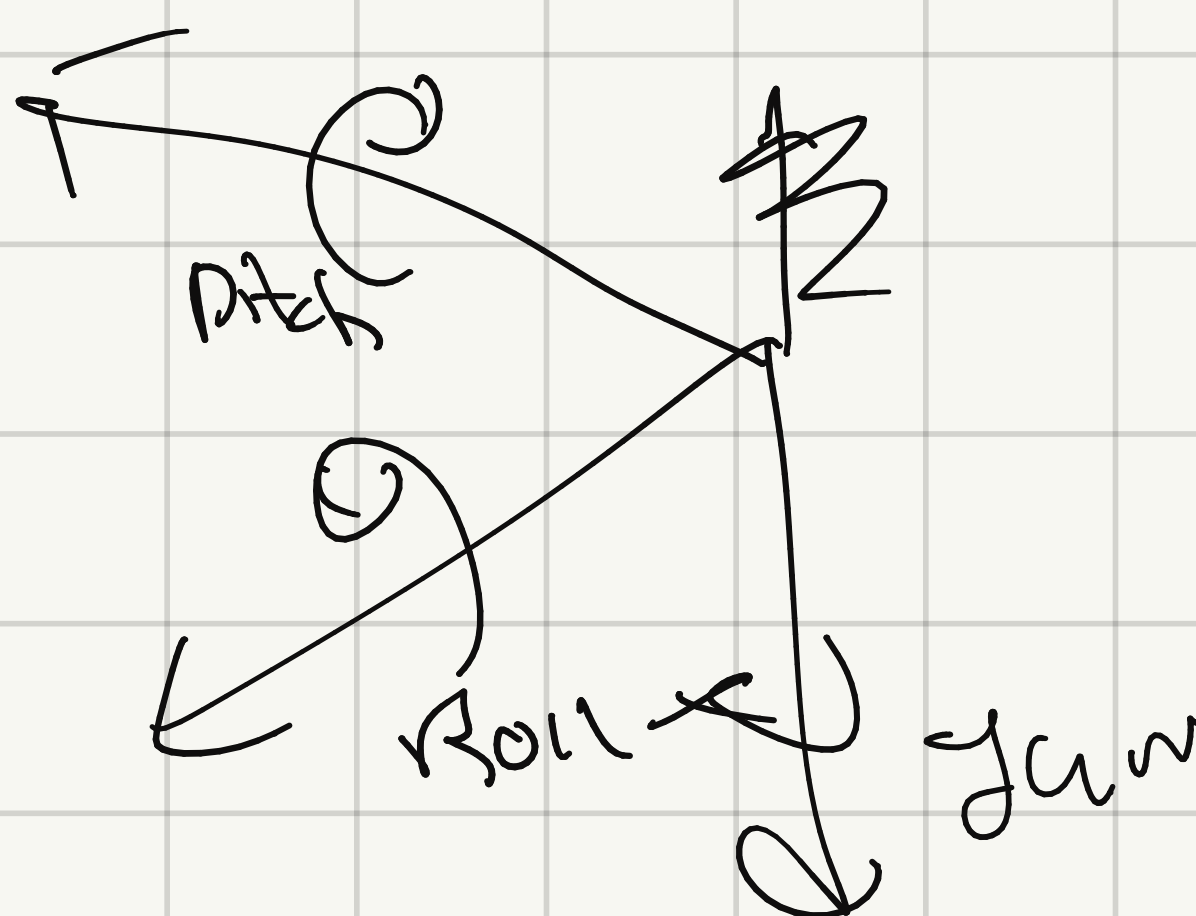
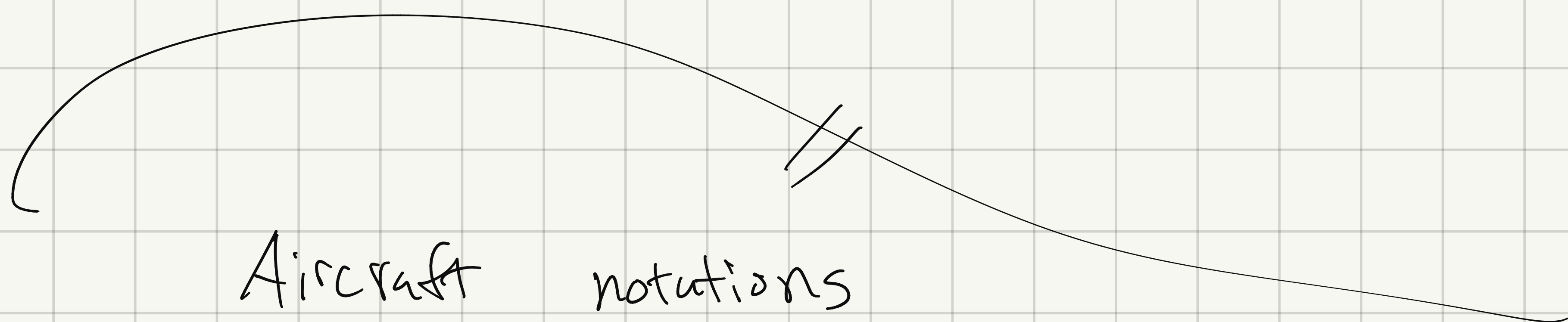
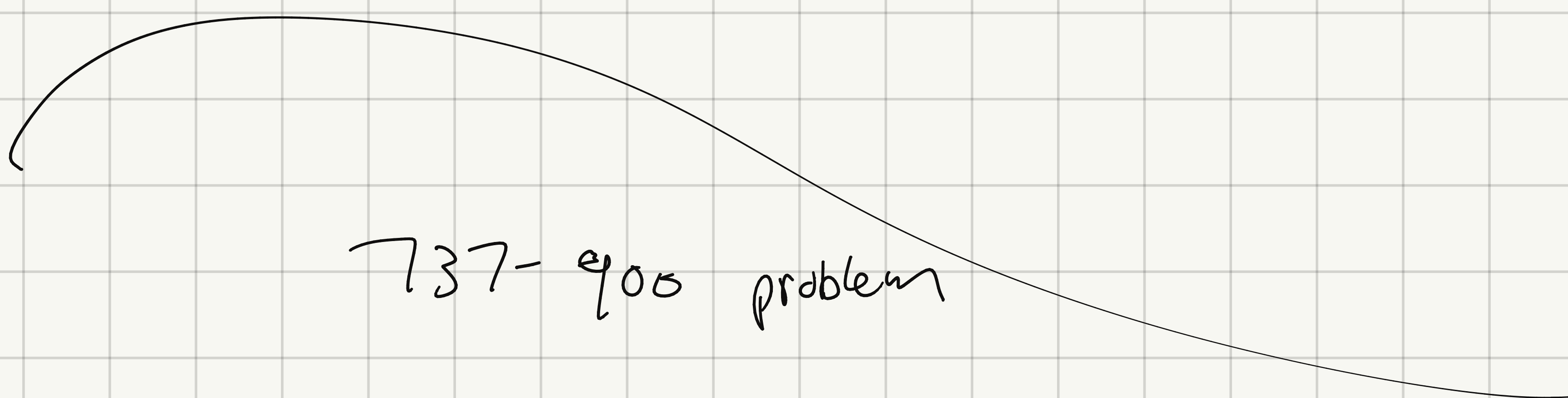
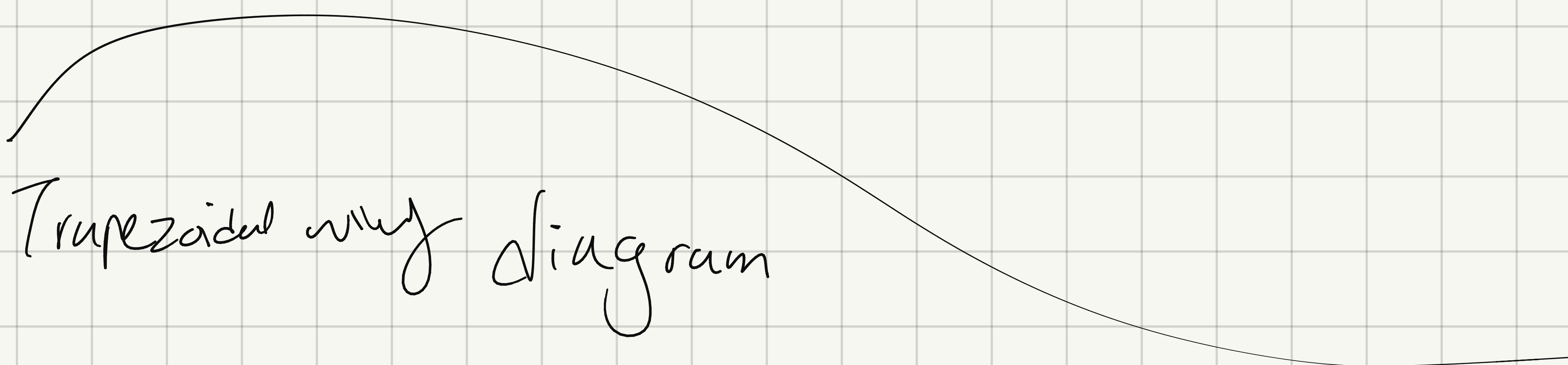
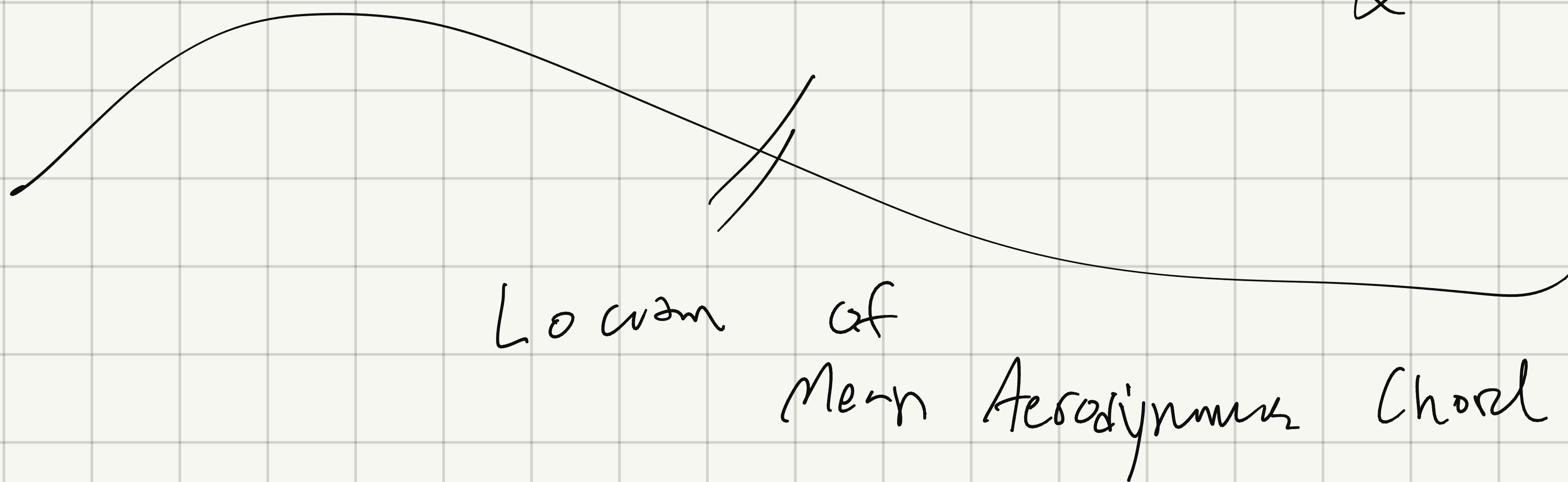
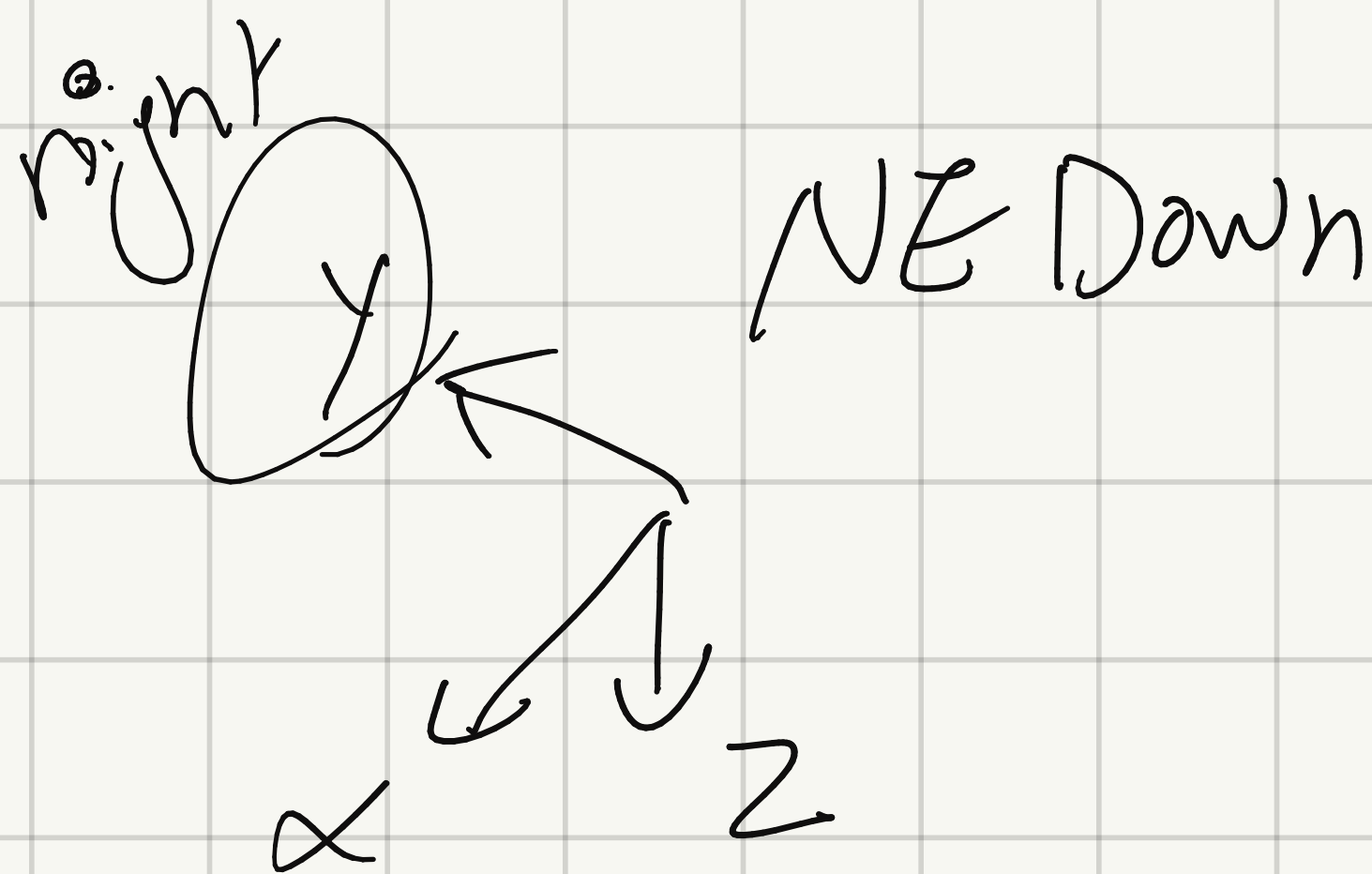
Wing sweep angle, λ

Faster \Rightarrow increase sweep angle
airplane

delta wings doesn't generate lift the same way
eddies generated on the front part of the
wing to lift.

Vortex lift

Wing platform
aspect ratio



Moment notation

$$L \sim x$$

$$M \sim y$$

$$N \sim z$$

$$p \sim \omega_x \text{ roll}$$

$$q \sim \omega_y \text{ pitch}$$

$$r \sim \omega_z \text{ yaw rate}$$

Wind

