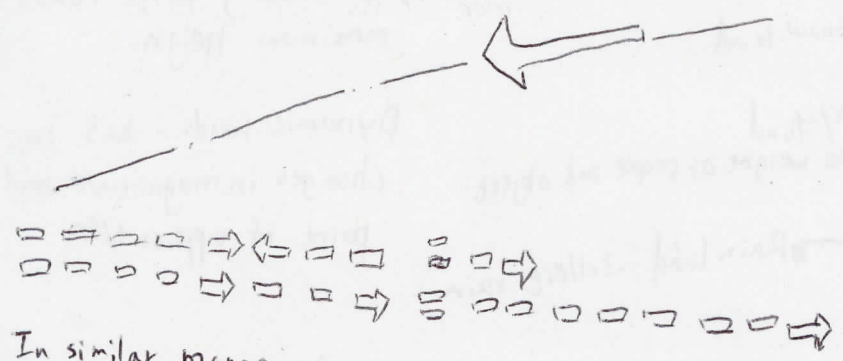
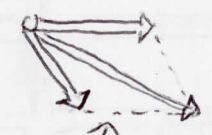


2.11

Force created a change in the shape or movement of a object



Collinear forces - acting in the same line
 Concurrent forces - has equal effect in the body



force vectors is add

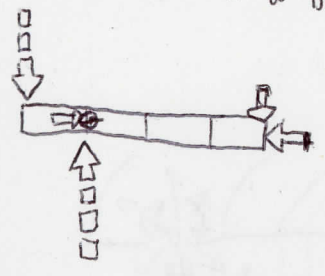
In similar manner, a single force can connect to the body equivalent



A couple is a force system of two equal forces and produce rotation that equal to the force and perpendicular distance between two forces



2.12 Equilibrium is a balance of opposing force in the structural element.



Object exerts a force that have magnitude in opposite direction

- Uniformly distributed load is uniform magnitude over the area to support other structure EX: joist, floor deck
- Concentrated load acts on small area when ~~column~~ bear on its footing.

Free body diagram were reactive force on a isolated part of structure to has reactions on its supports that maintain the equilibrium

2.13

Columns - long, slender structural to support axial compressive loads to apply in the end of the member

Long, slender column failure by buckling than by crushing and short, thick column is opposite of that. The higher of slender column has ~~less~~ critical stress to case it to buckle.

Kern area - center point of horizontal section of column or wall that all loads must pass