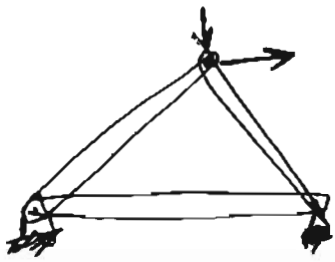
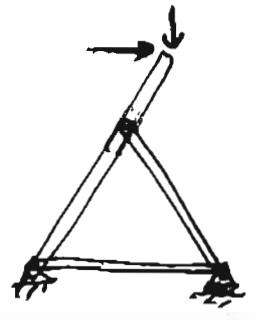
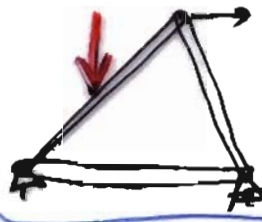


Frames & Machines

Frames and machines are **multi-force** members (not two-force members as trusses).



truss



frames
(cut between, Why?)

The internal forces in frames (at the joints.... etc) are as discussed before at the beginning of the chapter.

The way of the analysis for frames and machines is the same.

* Frames are usually ^{stationary} rigid, i.e., they do not move from their places. They are used to **support loads**.

* Machines are usually **nonrigid**. They are designed to **transmit and modify/alter forces**. The examples next will illustrate this.

In **each** part / **FBD**, there are usually 3 eq. (2-D R.B.: $\Sigma F_x = 0$; $\Sigma F_y = 0$; $\Sigma M = 0$) and possibly 3 unknowns.

* * * * * **FBD** with all forces, not more, not less!!