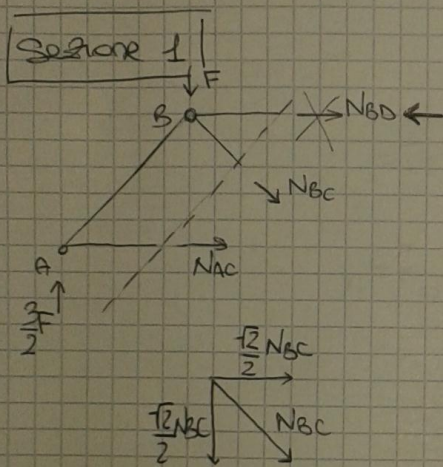
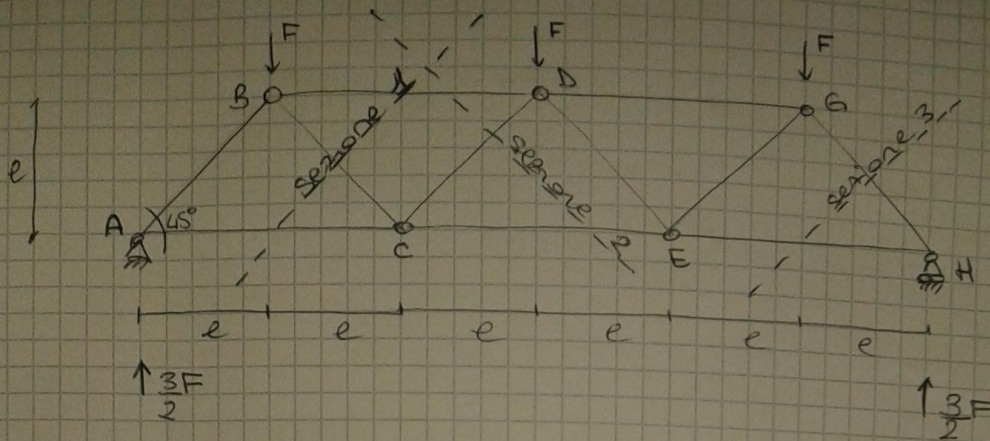


TRAVE RETICOLARE



* EQL alla rotazione con ρ_{Bb} in C

$$-N_{BD} \cdot e + Fe - \frac{3F}{2} \cdot e \cdot 2 = 0$$

$$N_{BD} = -2F$$

portore

* EQL alla rotazione con ρ_{Bb} in B

$$N_{AC} \cdot e - \frac{3F}{2} \cdot e = 0$$

$$N_{AC} = \frac{3F}{2}$$

tirante

* EQL alla traslazione (verticale)

$$\frac{3F}{2} - F - \frac{\sqrt{2}}{2} N_{BC} = 0$$

$$N_{BC} = \frac{\sqrt{2}}{2} F$$

tirante

* EQL alla rotazione con ρ_{Cb} in D

$$N_{CE} \cdot e - \frac{3F}{2} \cdot 3e + F \cdot 2e = 0$$

$$N_{CE} = \frac{5F}{2}$$

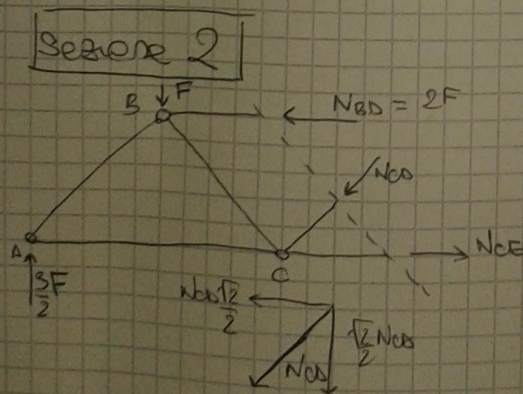
tirante

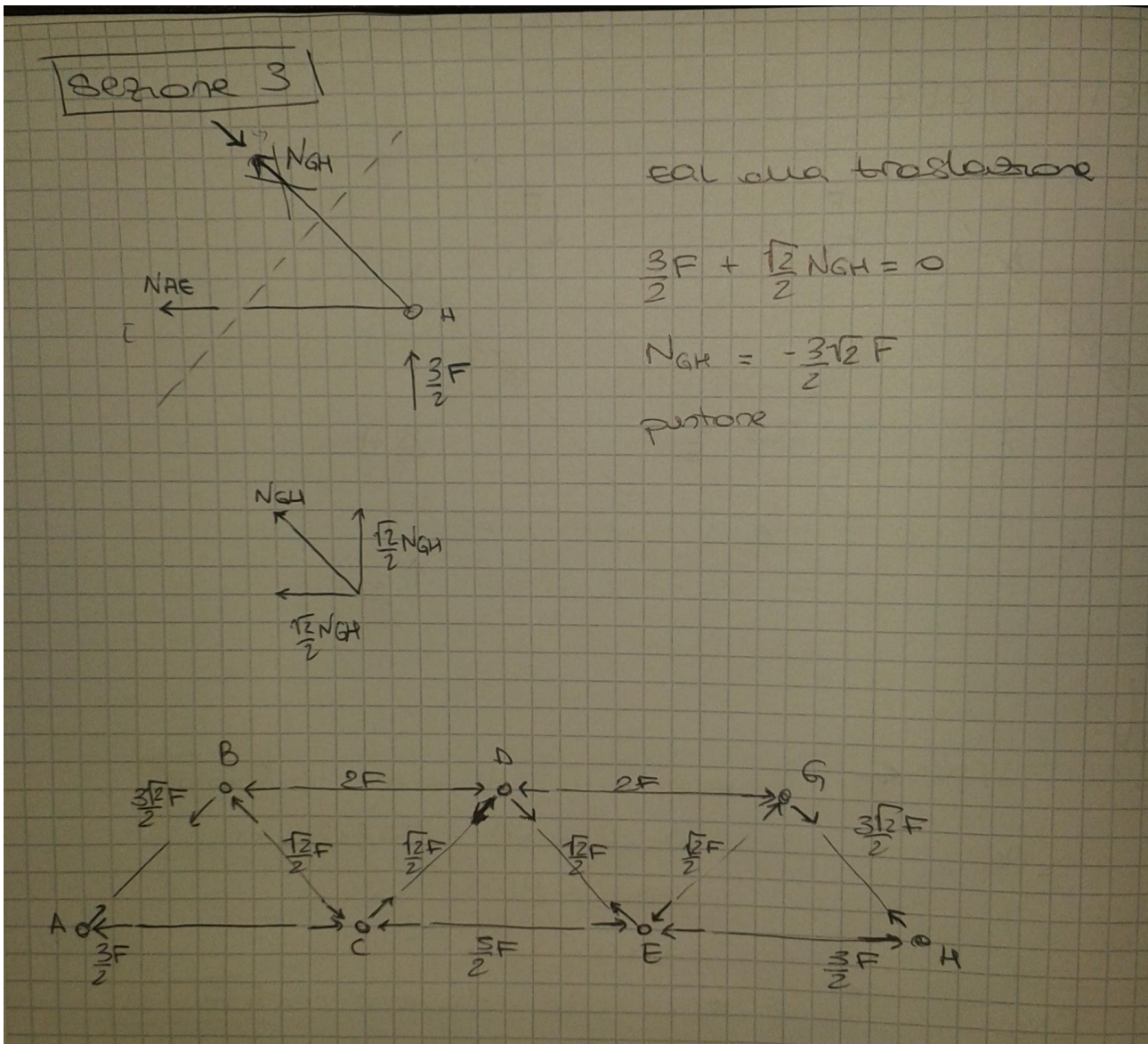
* EQL alla traslazione (verticale)

$$\frac{3F}{2} - F - \frac{\sqrt{2}}{2} N_{CD} = 0$$

$$N_{CD} = \frac{\sqrt{2}}{2} F$$

portore





Esercitazione: trave Reticolare

-Scelgo il file 2Dtrusses

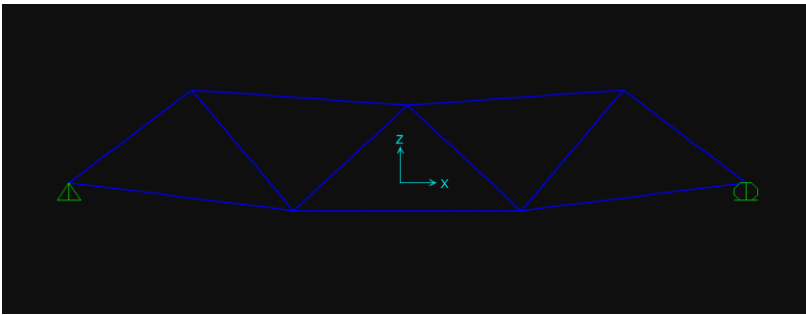
-Definisco che la struttura abbia peso nullo. Define-load patterns-self weight multiplier=0

-Definisco la sezione: Define-section properties-frame sections-add new property

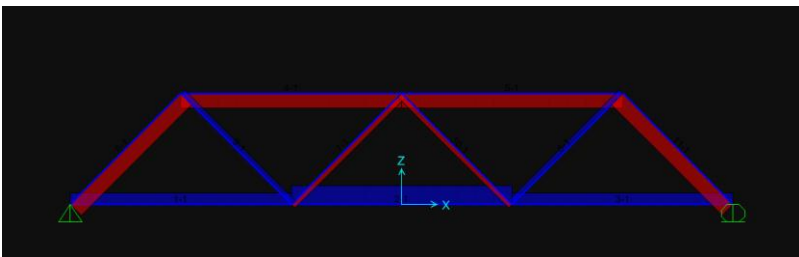
-Sui nodi superiori agiscono le forze esterne e assegno un valore pari a -20

-Collego le aste con delle cerniere: assign-frame-releases-moment33=0

-Ottengo la deformata tramite Run



-Diagramma degli sforzi assiali



-Tabelle di analisi: display-show tables-analysis.element output

Element Forces - Frames

File View Format-Filter-Sort Select Options

Units: As Noted

Frame Text	Station m	OutputCase Text	CaseType Text	P1 KN	V2 KN	V3 KN	T KN-m	M2 KN-m
1	0	reticolare	LinStatic	30	0	0	0	0
1	0,5	reticolare	LinStatic	30	0	0	0	0
1	1	reticolare	LinStatic	30	0	0	0	0
1	1,5	reticolare	LinStatic	30	0	0	0	0
1	2	reticolare	LinStatic	30	0	0	0	0
1	2,5	reticolare	LinStatic	30	0	0	0	0
1	3	reticolare	LinStatic	30	0	0	0	0
1	3,5	reticolare	LinStatic	30	0	0	0	0
1	4	reticolare	LinStatic	30	0	0	0	0
1	4,5	reticolare	LinStatic	30	0	0	0	0
1	5	reticolare	LinStatic	30	0	0	0	0
1	5,5	reticolare	LinStatic	30	0	0	0	0
1	6	reticolare	LinStatic	30	0	0	0	0
2	0	reticolare	LinStatic	50	0	0	0	0
2	0,5	reticolare	LinStatic	50	0	0	0	0
2	1	reticolare	LinStatic	50	0	0	0	0
2	1,5	reticolare	LinStatic	50	0	0	0	0
2	2	reticolare	LinStatic	50	0	0	0	0
2	2,5	reticolare	LinStatic	50	0	0	0	0
2	3	reticolare	LinStatic	50	0	0	0	0

Record: 1 of 83

Add Tables... Done