

1) Rigideces

E=	1				
lab=	3	Lab=	3.00 m	Kab=	1
lbc=	1	Lbc=	6.00 m	Kbc=	0.16666667
lcd=	3	Lcd=	3.00 m	Kcd=	1

2) Factores de distribución

Nodo A	
FDab=	0

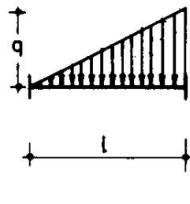
Nodo D	
FDdc=	0

Nodo B	
FDba=	0.85714286
FDbc=	0.14285714

Nodo C	
FDcb=	0.14285714
FDcd=	0.85714286
	1

3) Momentos fijos

Mbc=	-6.00 T-m
Mcb=	9.00 T-m

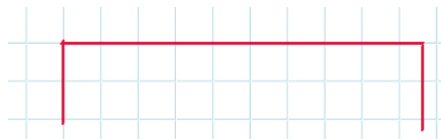


$$\mu_A = \frac{ql^2}{30}$$

$$\mu_B = -\frac{ql^2}{20}$$

4) Momentos de desequilibrio

-6.00 T-m

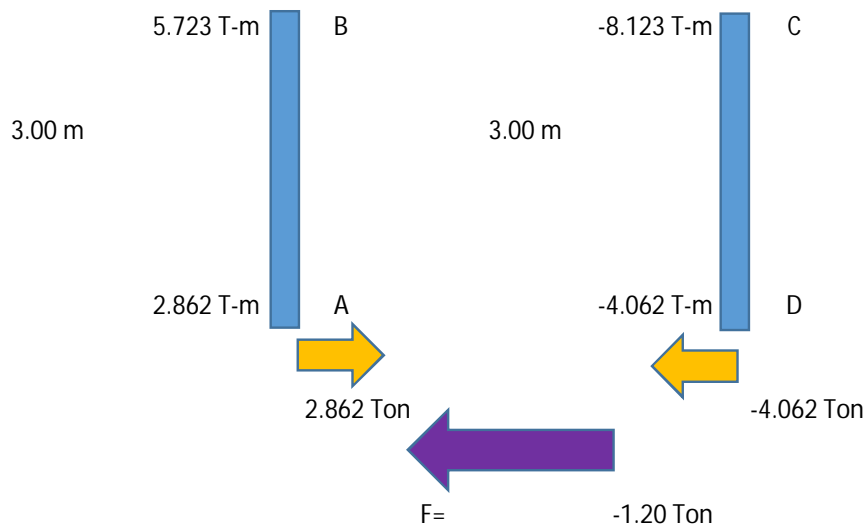


9.00 T-m

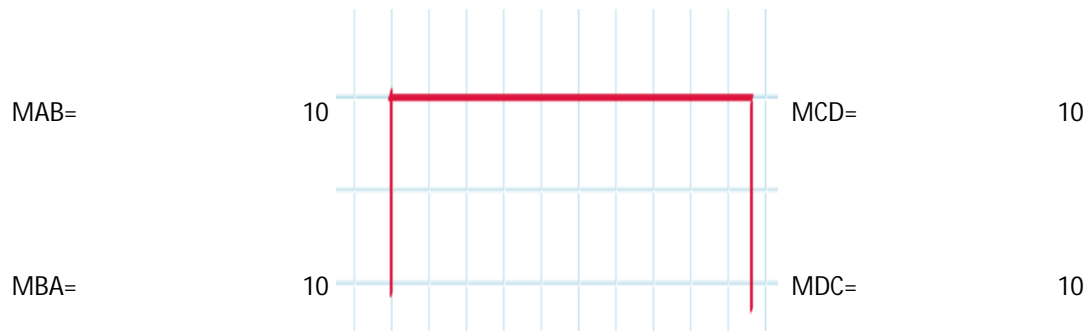
5) Tabla de Cross

Nodo	A	B		C		D
Elemento	AB	BA	BC	CB	CD	DC
F.D.=	0	0.85714286	0.14285714	0.14285714	0.85714286	0
M.F.=	0	0	-6.00 T-m	9.00 T-m	0	0
1D	0	5.14285714	0.85714286	-1.28571429	-7.71428571	0
1T	2.571428571	0	-0.64285714	0.42857143	0	-3.85714286
2D	0	0.55102041	0.09183673	-0.06122449	-0.36734694	0
2T	0.275510204	0	-0.03061224	0.04591837	0	-0.18367347
3D	0	0.02623907	0.00437318	-0.00655977	-0.0393586	0
3T	0.013119534	0	-0.00327988	0.00218659	0	-0.0196793
4D	0	0.00281133	0.00046855	-0.00031237	-0.00187422	0
4T	0.001405664	0	-0.00015618	0.00023428	0	-0.00093711
5D	0	0.00013387	2.2312E-05	-3.3468E-05	-0.00020081	0
5T	6.69364E-05	0	-1.6734E-05	1.1156E-05	0	-0.0001004
6D	0	1.4344E-05	2.3906E-06	-1.5937E-06	-9.5623E-06	0
M finales	2.862 T-m	5.723 T-m	-5.723 T-m	8.123 T-m	-8.123 T-m	-4.062 T-m

6) Reacciones en la base



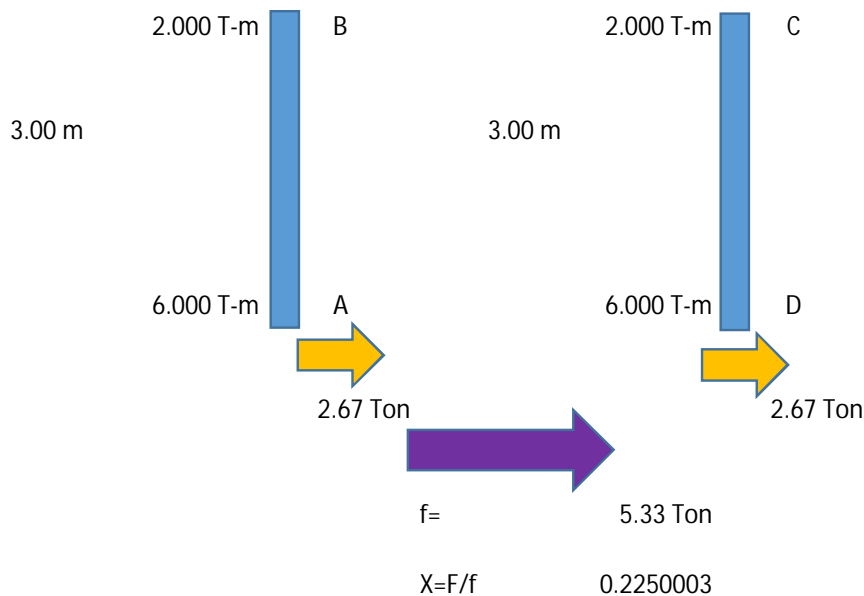
7) Imposición de momentos



8) Cross con ladeo

Nodo	A	B		C		D
Elemento	AB	BA	BC	CB	CD	DC
F.D.=	0	0.85714286	0.14285714	0.14285714	0.85714286	0
M.F.=	10	10			10	10
1D	0	-8.57142857	-1.42857143	-1.42857143	-8.57142857	0
1T	-4.285714286	0	-0.71428571	-0.71428571	0	-4.28571429
2D	0	0.6122449	0.10204082	0.10204082	0.6122449	0
2T	0.306122449	0	0.05102041	0.05102041	0	0.30612245
3D	0	-0.04373178	-0.00728863	-0.00728863	-0.04373178	0
3T	-0.021865889	0	-0.00364431	-0.00364431	0	-0.02186589
4D	0	0.0031237	0.00052062	0.00052062	0.0031237	0
4T	0.001561849	0	0.00026031	0.00026031	0	0.00156185
5D	0	-0.00022312	-3.7187E-05	-3.7187E-05	-0.00022312	0
5T	-0.000111561	0	-1.8593E-05	-1.8593E-05	0	-0.00011156
6D	0	1.5937E-05	2.6562E-06	2.6562E-06	1.5937E-05	0
M finales	6.000 T-m	2.000 T-m	-2.000 T-m	-2.000 T-m	2.000 T-m	6.000 T-m

9) Reacciones en la base y factor de corrección



10) Momentos finales

MSL=	2.862 T-m	5.723 T-m	-5.723 T-m	8.123 T-m	-8.123 T-m	-4.062 T-m
X*MCL=	1.35000012	0.45000084	-0.45000084	-0.45000084	0.45000084	1.35000012
M finales	4.212 T-m	6.173 T-m	-6.173 T-m	7.673 T-m	-7.673 T-m	-2.712 T-m

