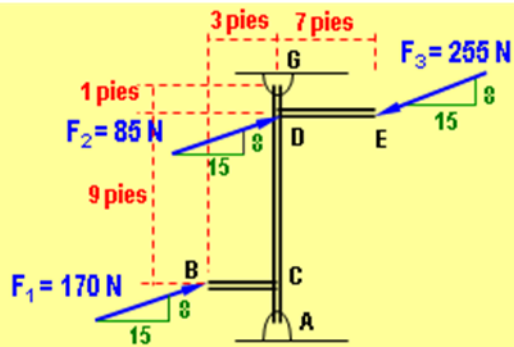


**Pag. 1.-**

Determinar el momento de torsión respecto del punto G.

$M_{RG} = \underline{\hspace{2cm}} \text{ N-m}$



		d	Fx / Fy	M <sub>G</sub>
170	8	3	80	240
17	15	10	150	-1500
85	8	0	40	0
17	15	1	75	-75
255	8	7	120	840
17	15	1	225	225
				<b>-270</b>
				<b>N-pie</b>
<b>M<sub>G</sub></b>		<b>-82,296</b>	<b>N-m</b>	

**Pag. 2.-**

Determinar la resultante de 4 fuerzas coplanares:

$$F_1 = 65 \text{ lb } \nearrow \text{ tang}^{-1} (5/12).$$

$$F_2 = 20 \text{ lb } \searrow \text{ tang}^{-1} (4/3).$$

$$F_3 = 50 \text{ lb } \searrow \text{ tang}^{-1} (1/4).$$

$$F_4 = 85 \text{ lb } \swarrow \text{ tang}^{-1} (15/8).$$

$F_R =$ _____ <i>lb</i>
-------------------------

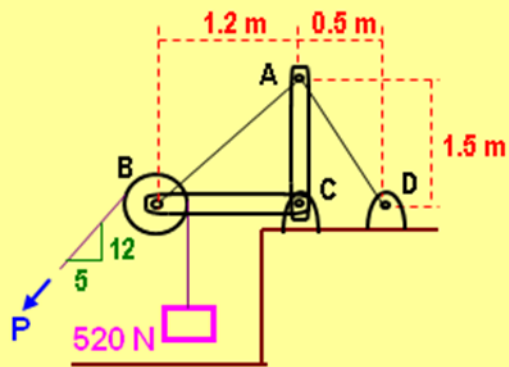
		Fx	Fy
65	5		25
13	12	60	
20	4		16
5	3	-12	
50	1		12,1267813
4,1	4	-48,5	
85	15		-75
17	8	40	

4º cuadrante	39,493	-21,87321875	
grados	-28,98	45,14559639	Lb

**Pag. 3.-**

Determinar la carga soportada por el miembro AC.

$R_{AC} = \underline{\hspace{2cm}} .$



520	1	520	$T_x$
1	0	0	$T_y$
520	12	480	$P_x$
13	5	200	$P_y$

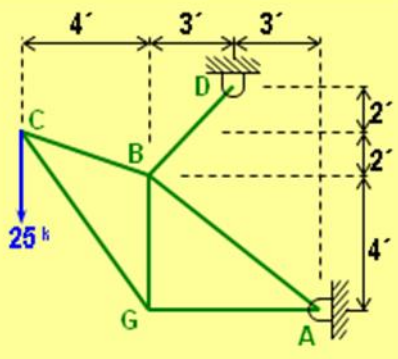
	1,5	1000	1280,624847 $R_{AB} (T)$
1,9209	1,2	800	$R_{ABx}$
	1,5	2400	2529,822128 $R_{AD} (T)$
1,5811	0,5	800	$R_{ADx}$
		$R_{AC}$	3400,000 N (C)

**Pag.4.-**

Calcular las reacciones del apoyo A.

$R_{AX} = \underline{\hspace{2cm}} \text{ K}$

$R_{AY} = \underline{\hspace{2cm}} \text{ K}$



- 25 k
- 10 m
- 4 m
- 6 m

	4
5	3

$R_{BD} = 25k \cdot 10m / ((3/5) \cdot 4m + (4/5) \cdot 6m); \Sigma M_A$

R <sub>BD</sub>	34,7222	k (T)
R <sub>BDx</sub>	20,8333	
R <sub>BDy</sub>	27,7778	
R <sub>Ax</sub>	-20,8333	k
R <sub>Ay</sub>	-2,7778	k