ARQ. JOSE LISANDRO LOPEZ ALFARO

NOMBRE DEL TEMA: ESTATICA Y MOMENTOS

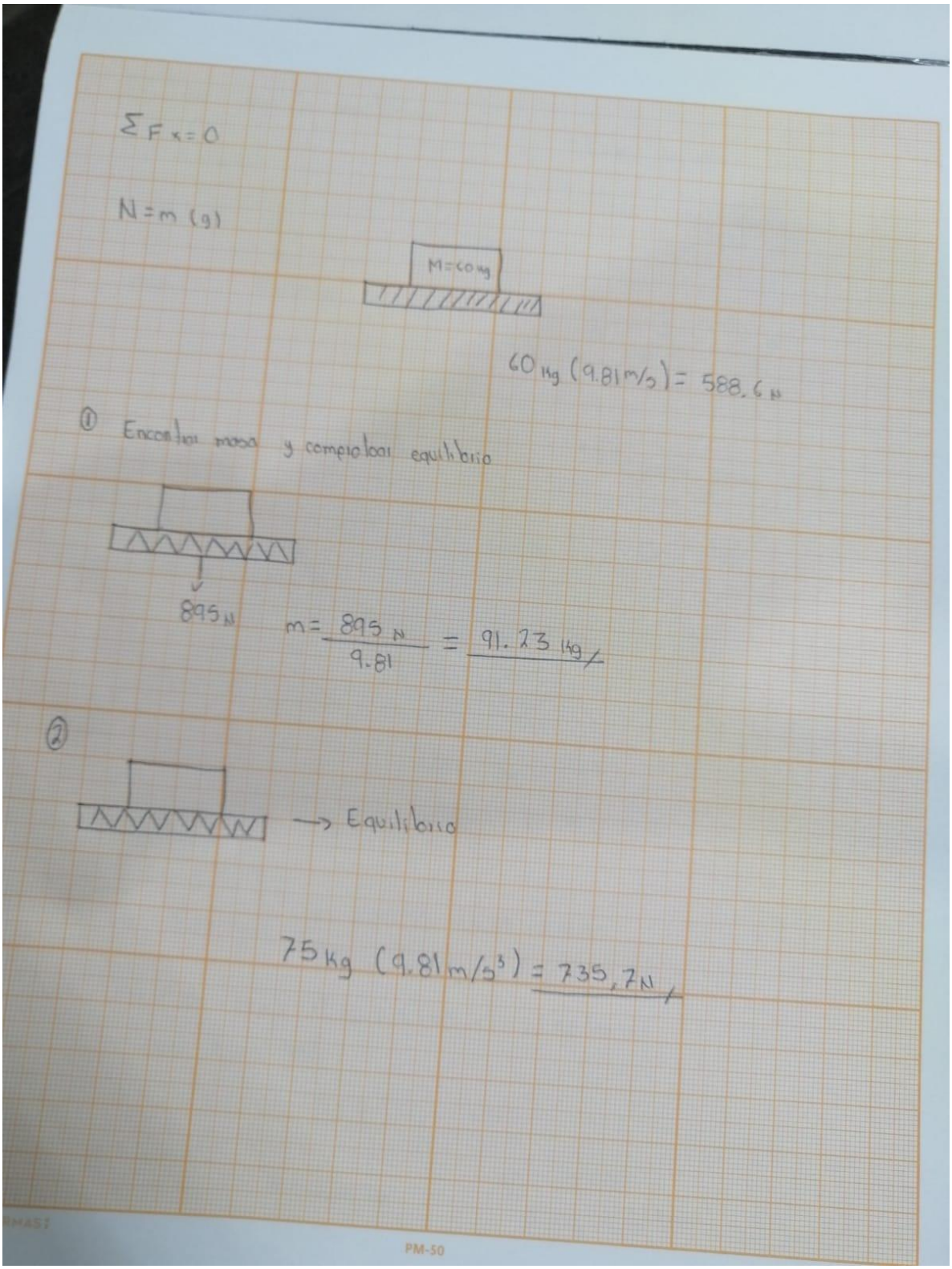
PARCIAL: I

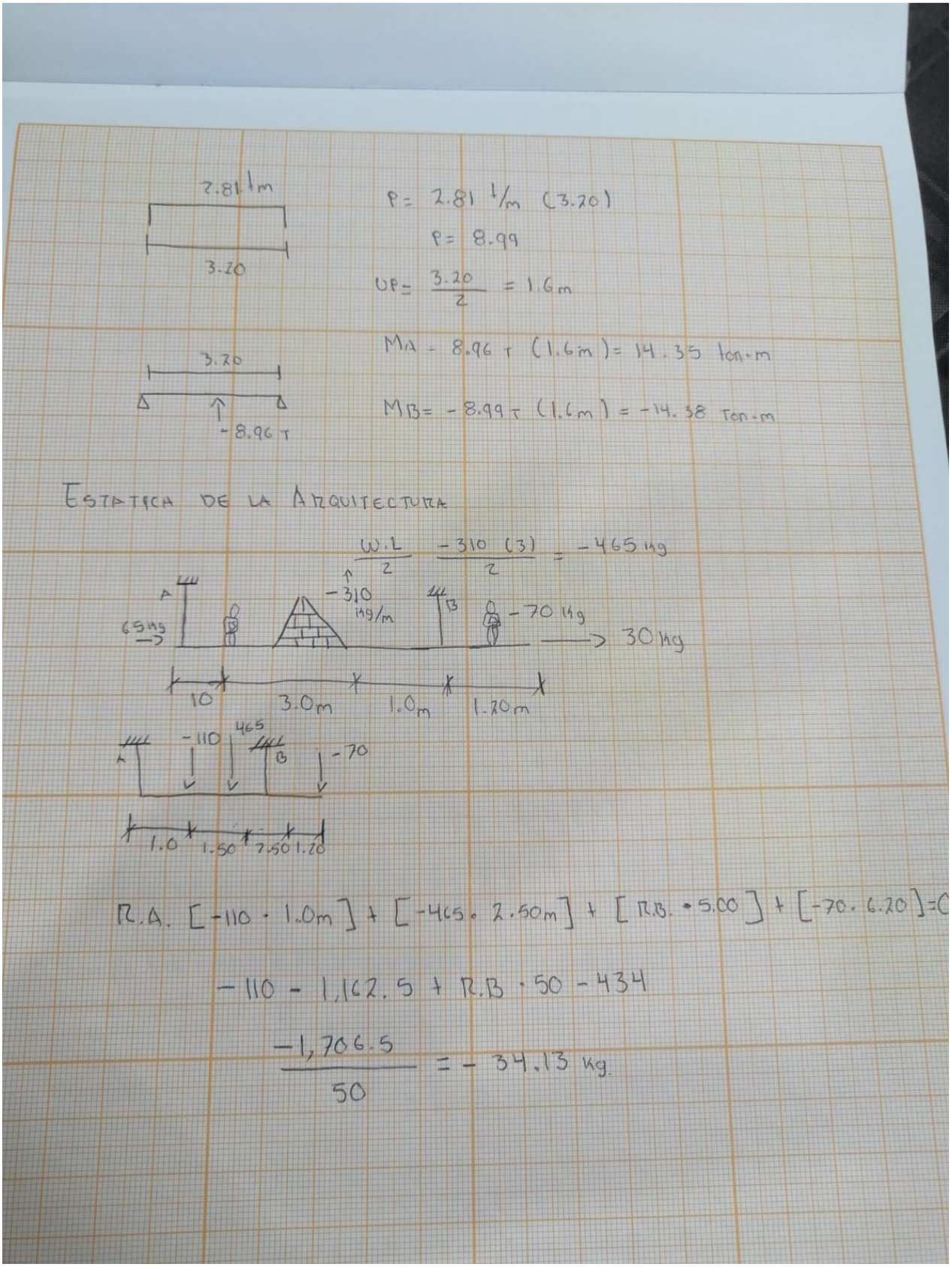
NOMBRE DE LA MATERIA: ESTATICA DELA ARQUITECTURA

AQR.PEDRO ALBERTO GARCIA LOPEZ

NOMBRE DE LA LICENCIATURA: ARQUITECTURA

CUATRIMESTRE: 3


$\Sigma F_x = 0$
$N = m\,(g)$
M=60 kg
60 kg (9.81 m/s) = 588.6 N
① Encontrar masa y completar equilibrio
895 N
$m = \frac{895\ N}{9.81} = 91.23\ kg$
②
→ Equilibrio
75 kg (9.81 m/s²) = 735.7 N
PM-50


2.81 t/m
3.20
P= 2.81 t/m (3.20)
P= 8.99
UP= 3.20/2 = 1.6m
3.20
-8.96 T
MA = 8.96 T (1.6m) = 14.35 Ton·m
MB= -8.99 T (1.6m) = -14.38 Ton·m
ESTATICA DE LA ARQUITECTURA
W.L/2 -310 (3)/2 = -465 kg
-310 kg/m
65 kg
-70 kg
30 kg
10
3.0m
1.0m
1.20m
-110
465
-70
1.0
1.50
2.50
1.20
R.A. [-110 · 1.0m] + [-465 · 2.50m] + [R.B. · 5.00] + [-70 · 6.20] = 0
-110 - 1,162.5 + R.B · 50 - 434
-1,706.5/50 = - 34.13 kg.

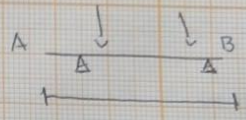
Estatica para la arquitectura

Fuerza

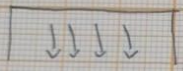
$M = F \cdot d$

masa — Distancia

- Cargas puntuales libre
- Carga distribuida puntual

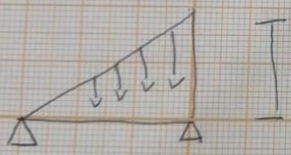


- Carga distribuida rectangular.



→ W.L (Kg., N., etc.), $Up = C/2$

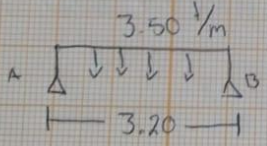
- Carga distribuida triangular



$P = \frac{(w \cdot c)}{2}$

$Up = 2/3\ L\ (A)$

$1/3\ L\ (B \rightarrow 90)$

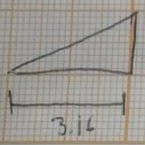


$P = 3.50\ t/m\ (3.20) = 11.20$

$Up = 3.20/20 = 1.60\ m$

$M = F \cdot d$ $M_A = 11.20\ T\ (1.60\ m) = 17.92\ ton \cdot m$

$W = 2.75\ ton/m$



$P = \frac{2.75\ ton/m\ (3.16)}{2}$

$P = 4.34\ ton$

$Up = 1/3\ (B)$

$3.16/3 = 1.05\ m$

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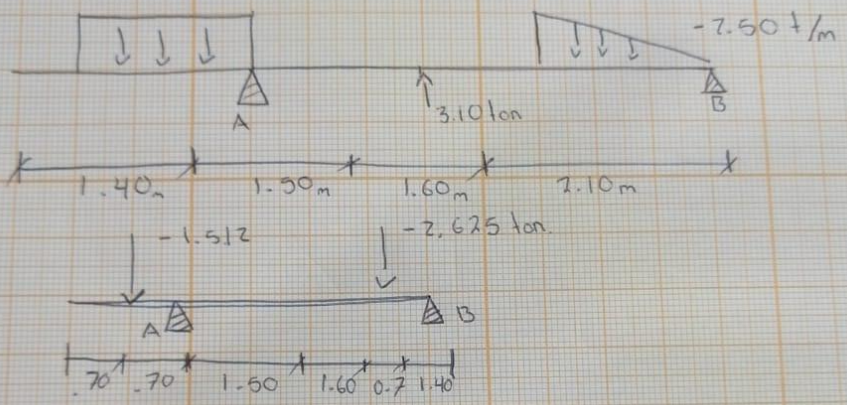
R.A.

$-110 - 465 + 341.3 - 70$

R.A. $= -303.7$ m

Comprobacion $-303.7 - 110 - 465 + 341.3 - 70 = 0$ ☺



W.L $= -1.08 + 1.40 = -1.512$ ton

$\frac{W.L}{2} = -2.50 \cdot 2.10 = -2.625$ ton

R.A. $(-1.512 \cdot 70) + (3.10 \cdot 1.5) + (-2.625 \cdot 3.8) + (R.B \cdot 5.2)$

$-105.84 + 4.65 + 9.975 - R.B \cdot 5.2 = 0$

4.267 ton $+ R.B \cdot 5.2 = 0$

$RB = \frac{4.267}{5.2} = 0.82$ ton

R.A $= -1.512 + R.A. + 3.10 + 2.625 + 0.82 = 0.217$ ton

Comprobacion $-1.512 + 0.217 + 3.10 - 2.625 + 0.82 = 0$ ☺

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