



PASIÓN POR EDUCAR

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**Licenciatura:**

**Arquitectura**

**Materia:**

**Estática**

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**Nombre del trabajo:**

**Ejercicios**

Comitán de Domínguez, Chiapas a 23 de junio de 2020.

Segmento	L (mm)	$\bar{x}$ (mm)	$\bar{y}$ (mm)	$\bar{x}L$ (mm <sup>2</sup> )	$\bar{y}L$ (mm <sup>2</sup> )
1	200	100	200	15.07	31.71
2	180	200	90	28.57	12.85
3	200	300	100	41.61	15.87
4	380	100	190	120.63	57.50
5	300	550	0	130.95	0
	$\Sigma L_T = 1260$			313.63	117.76

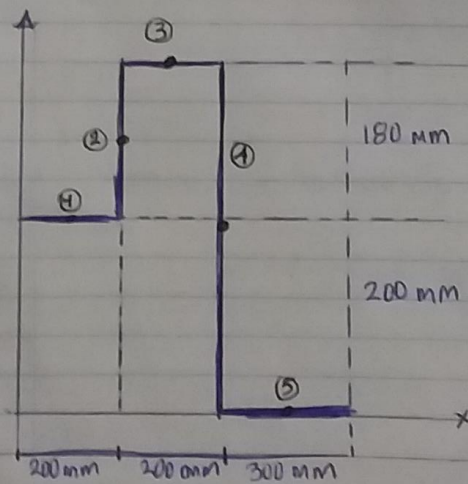
Formulas

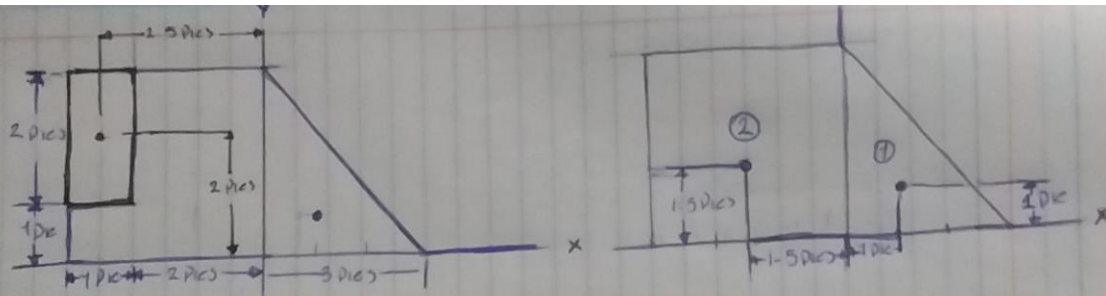
$$\bar{X} = \frac{\sum (\bar{x}_i \times L_i)}{L_T}$$

$$xL = 0.272$$

$$yL = 0.093$$

$$\bar{Y} = \frac{\sum (\bar{y}_i \times L_i)}{L_T}$$





Parte	Área	$\bar{x}$	$\bar{y}$	$\bar{x}A$	$\bar{y}A$
1	$(1/2)(3)(3) = 4.5$	$(1/3)(3) = 1$	$(1/3)(3) = 1$	4.5	4.5
2	$(3)(3) = 9$	$-3/2 = -1.5$	$3/2 = 1.5$	-13.5	13.5
3	$-(1)(2) = -2$	$-2.1 = -2.5$	$1/2 = 2$	5	-1
Soma	11.5			-1	11

$$\bar{X} = \frac{\sum(\bar{x}A)}{\sum A} = \frac{-1}{11.5} = -0.348$$

$$\bar{Y} = \frac{\sum(\bar{y}A)}{\sum A} = \frac{11}{11.5} = 1.217$$