

The background of the cover is a light cream color. It features abstract, organic shapes in a light blue watercolor style, primarily located in the top right and bottom left corners. Overlaid on these are thin, black, hand-drawn style lines that form loops and curves, adding a modern, architectural feel to the design.

ESTÁTICA PARA LA **ARQUITECTURA**

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Actividad plataforma

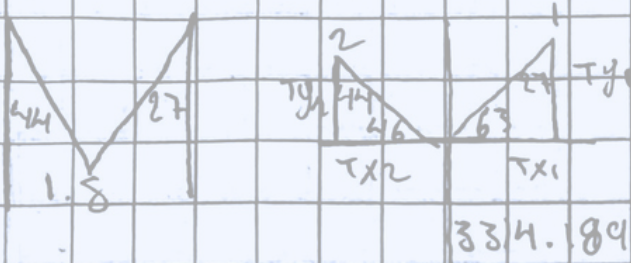
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Scribe®

Se pretende utilizar 2 cables que tienen una resistencia de 2000 lbf para sostener en el cable a una camión de 1.8 toneladas. Dichos cables forman ángulos de 23° y 44° con los soportes. Determina si los cables son aptos.



$$1.8 \text{ Toneladas} = 1800 \text{ Kg}$$

$$1800 (9.81) = 14718$$

$$= 3314.189 \text{ lbf}$$

$$T_{x1} - T_{x2} = 0$$

$$T_1 (\cos 63) = T_2 (\cos 46)$$

$$T_1 0.483 = T_2 0.694$$

$$T_1 = \frac{T_2 0.694}{0.483}$$

$$T_1 = T_2 1.532$$

$$= T_2 1.532 \times 1890.301$$

$$= 2436.341$$

$$T_{x1} = T_1 \cos \theta$$

$$T_x = 2436.341 (\cos 63)$$

$$T_{x1} = 1106.078$$

$$T_{x2} = 1106.078$$

$$T_{y1} + T_{y2} = 3314.189$$

$$T_1 (\sin 63) + T_2 (\sin 46) = 3314.189$$

$$T_1 0.891 + T_2 0.719 = 3314.189$$

$$(T_1 1.532) 0.891 + T_2 0.719 = 3314.189$$

$$T_2 1.368 + T_2 0.719 = 3314.189$$

$$T_2 2.084 = 3314.189$$

$$T_2 = \frac{3314.189}{2.084}$$

$$= 1590.301$$

$$T_{y1} = T_1 \sin \theta$$

$$T_{y1} = 2436.341 (\sin 63)$$

$$T_{y1} = 2176.798$$

$$T_{y2} = 1590.301 (\sin 46)$$

$$T_{y2} = 1143.966$$