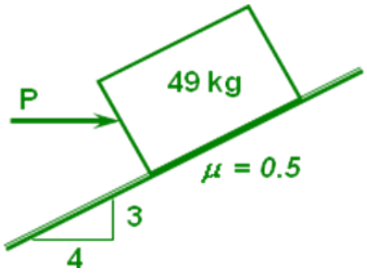
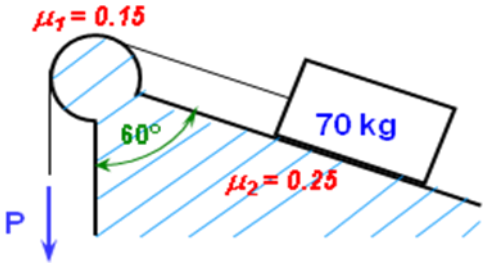
**Pag. 1.-**
Calcular la fuerza **P**, un instante antes de que el bloque **baje** por el plano inclinado




| | | | |
|---|---|---|---|
| **49** | kN | | **3** |
| **0,5** | μ | **5** | **4** |
| α =tan-1(8/15) | | **36,8699** | |
| θ =tan-1 μ | | **26,5651** | |
| $\Phi = \theta - \alpha$ | | **10,3048** | |
| **P** = w ( tan Φ) | | **8,9091** | **kgf** |

**Pag. 2.-**
El **bloque** de la figura está en condición de movimiento inminente hacia abajo, calcular la magnitud de **P**.




| | | | | |
|---|---|---|---|---|
| m | 70 | kg | 686,0000 | N (w) |
| $\mu_2$ | 0,25 | | | |
| $\phi$ | 60 | ° | | |

T = w*(cos(ϕ*PI()/180) - μ2*sen(ϕ*PI()/180))

| | | |
|---|---|---|
| **T** | **194,4766433** | **N** |

$\mu_1$ 0,15

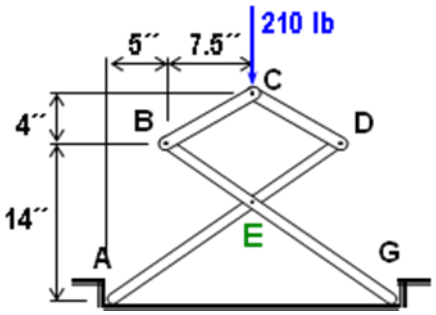
Pmim = T / EXP(μ1*(180-ϕ)*(PI()/180))

| | | |
|---|---|---|
| **$P_{MIN}$** | **142,0463** | **N** |

Pmax = T *EXP(μ1*(180-ϕ)*(PI()/180))

| | | | |
|---|---|---|---|
| *NO* | **$P_{MAX}$** | **266,2595** | **N** |

## Pag. 3.-
Calcular las componentes del **pasador E**.




| | | | | |
|---|---|---|---|---|
| 210 | lb | | 4 | |
| 7,5 | pulg | | 7,5 | 8,5 |
| 5 | pulg | | 14 | pulg |

RBC=210/2 lb/(4/8,5); ΣFy

| | | |
|---|---|---|
| R_BC | 223,1250 | lb (C) |

RGy=210/2 ; ΣMA

| | | |
|---|---|---|
| R_Gy | 105,0000 | lb |

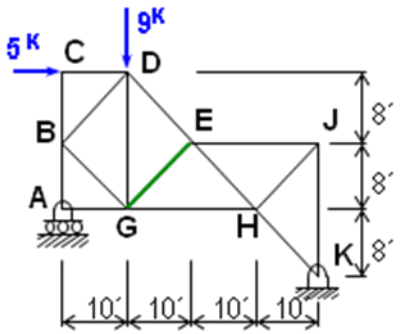
REy=RBC*(4/8,5)+RGy; ΣFy

| | | |
|---|---|---|
| R_Ey | 0,0000 | lb |
| EGy | 8,7500 | pulg |

REx=RBC*((4/8,5)*20+(7,5/8,5)*14)/EGy; ΣMG

| | | |
|---|---|---|
| R_Ex | 555,0000 | lb |

## Pag. 4.-
Calcular la carga soportada por la **barra EG**.




| | | | |
|---|---|---|---|
| 5 | K | | 8 |
| 9 | K | 12,80624847 | 10 |

RA=(9k*3*10´+5k*3*8´)/(4*10´); ΣMK

| | | |
|---|---|---|
| R_A | 3,7500 | K |

RDE=(RA*10´+5k*2*8´)/(2*8´*10/12,8); ΣMG

| | | |
|---|---|---|
| R_DE | 9,4046 | K (C) |

REG=(RA-9k+RDE*(8/12,8))/(8/12,8); ΣFy

| | | |
|---|---|---|
| R_EG | 1,0005 | kN (C) |