Q1 - Answer = c
Q2 - Problem A - Last name A-K

A weight W is suspended from a massless rod pivoting freely at its point of attachment to the wall. If W = 50 kg, d_1=50 cm, d_2 = 100 cm and = 30°, what is the tension T in the slanted rope?

A. 245

B. **1470 N**

C. 490 N

D. 850 N

E. 1.5×10^5 N

$(d_1+d_2)mg=$

$Td_2\sin(\ )$

$T=((d_1+d_2)mg/$

$(d_2\sin(\ ))=1.5\times50$
$\times9.8\times2/1 =1470$ N
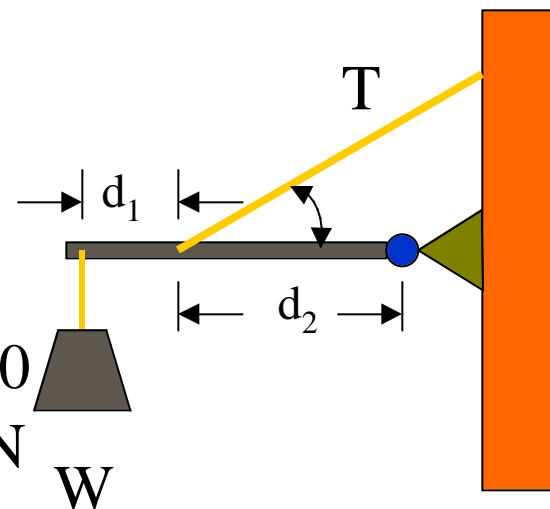
Q1 - Answer = c
Q2 - Problem B - Last Name L-Z

- A weight W is suspended from a massless rod pivoting freely at its point of attachment to the wall. If W = 40 kg, d_1=33 cm, d_2 = 67 cm and θ = 45°, what is the tension T in the slanted rope?

A. 554

B. 392 N

C. 196 N

D. **827 N**

E. 5.5 x 10^5 N

$(d_1+d_2)mg=$

$Td_2\sin(\theta)$

$T=((d_1+d_2)mg/$

$(d_2\sin(\theta))=1\times40\times9.8$

$/(0.67)(2)^{1/2} = 827$ N

W