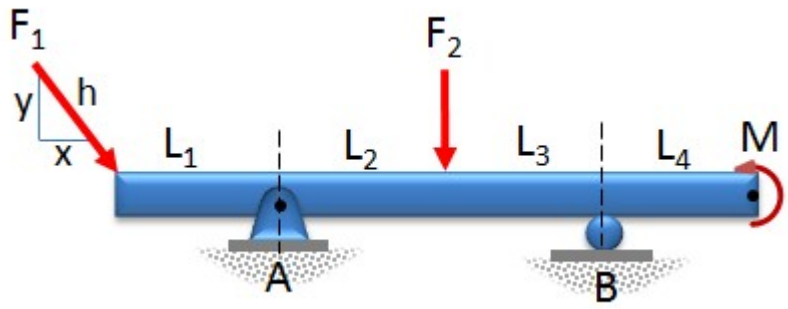
Online Homework System

Assignment Worksheet
6/16/22 - 4:03:17 PM MDT

Name: _____ **Class:**
Class #: _____ **Section #:** _____
Instructor: Parker Schnepf **Assignment:** 6.1 Homework Exercises

Question 1: (10 points)



Find the reactions at supports **A** and **B**, given:

M = 800 *lb·ft*, **F1** = 310 *lbs*, **F2** = 320 *lbs*, **L1** = 2.1 *ft*, **L2** = 2.2 *ft*, **L3**= 1.5 *ft*, **L4** = 1 *ft*, **x**,**y**,**h** = 12,5,13

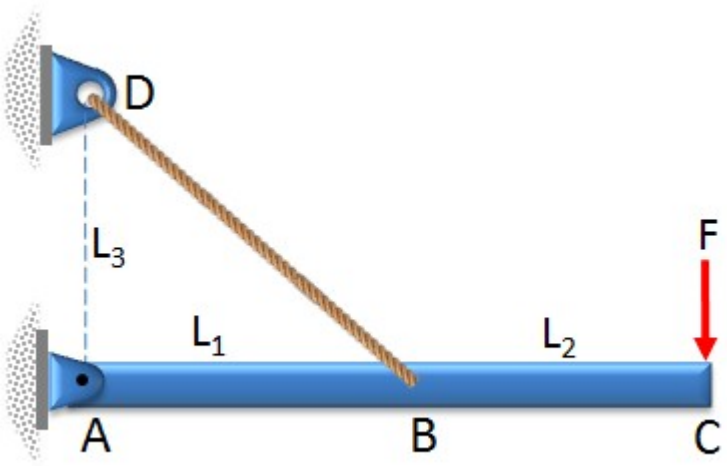
Note: +x is to the right, +y is upward

*(ans: **AX** = -286 lbs, **AY** = 533 lbs, **BY** = -93.6 lbs,)*

Select problem completion status from drop-down list:

_____

Question 2: (10 points)



Find the reactions at **A** and the magnitude of the tension in cable **BD**, given:

F = 65 *N*, $\mathbf{L_1}$ = 1.2 *m*, $\mathbf{L_2}$ = 1 *m*, $\mathbf{L_3}$ = 2 *m*

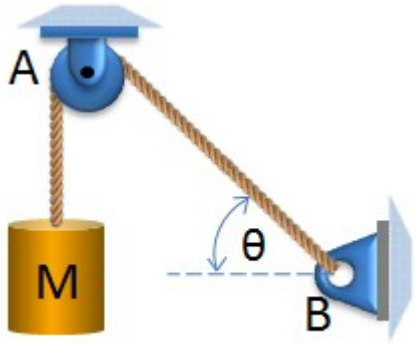
Note: +x is to the right, +y is upward

(ans: $\boldsymbol{A_X}$ *= 71.5 N,* $\boldsymbol{A_Y}$ *= -54.2 N,* $\boldsymbol{T_{BD}}$ *= 139 N,)*

Select problem completion status from drop-down list:

_____

Question 3: (10 points)



Find the reactions at pin **A** and the magnitude of the tension in cable **AB**, given:

M = 50 *kg*, **θ** = 65°

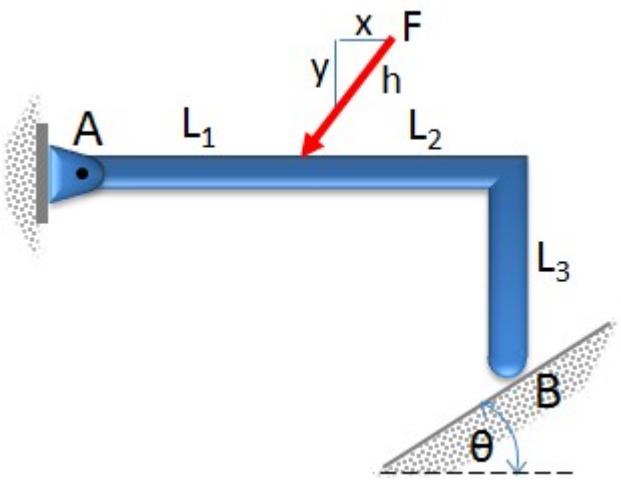
Note: +x is to the right, +y is upward

(ans: $\boldsymbol{A_X}$ *= -207 N,* $\boldsymbol{A_Y}$ *= 935 N,* $\boldsymbol{T_{AB}}$ *= 491 N,)*

Select problem completion status from drop-down list:

_____

Question 4: (10 points)



Find the horizontal and vertical reactions at point **A** and the magnitude of the normal reaction at point **B**, given:

F = 450 *lbs*, **L_1** = 2 *ft*, **L_2** = 2.4 *ft*, **L_3** = 1.8 *ft*, **θ** = 40°, **x**,**y**,**h**= 3,4,5

Note: +x is to the right, +y is upward

*(ans: **A_X** = 479 lbs, **A_Y** = 111 lbs, **N_B** = 325 lbs,)*

Select problem completion status from drop-down list:

_____