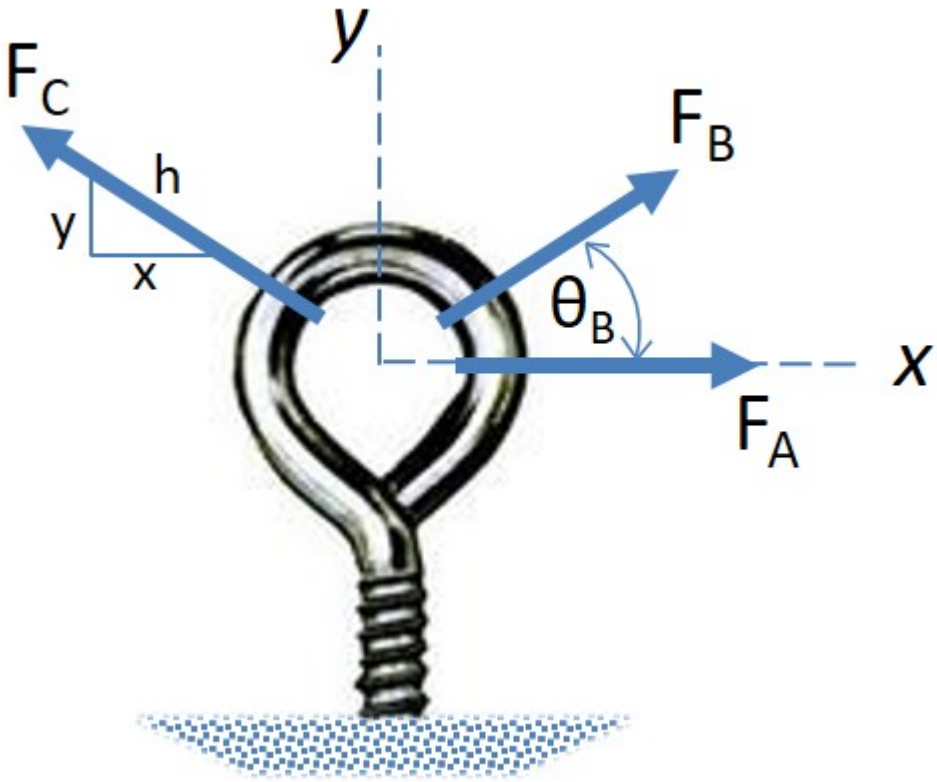
Online Homework System

Assignment Worksheet
6/1/22 - 7:59:55 PM MDT

Name: _____ **Class:**
Class #: _____ **Section #:** _____
Instructor: Parker Schnepf **Assignment:** 1.3 Homework Exercises

Question 1: (10 points)



Find the magnitude and direction of the resultant force from the positive *x*-axis, given:

$\mathbf{F_A}$ = 425 *N*, $\mathbf{F_B}$ = 450 *N*, θ_B = 40 °, $\mathbf{F_C}$ = 325 *N*, **x,y,h** = 4,3,5

(ans: $\boldsymbol{F_R}$ *= 703 N,* θ_R *= 43.5 °)*

Select problem completion status from drop-down list:

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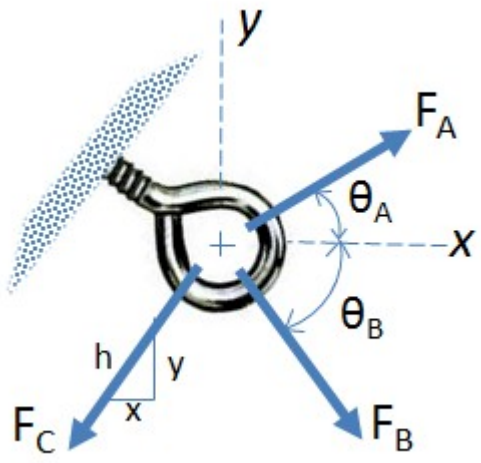
Question 2: (10 points)



Find the magnitude and direction of the force $\mathbf{F_A}$ given $\mathbf{F_B}$, $\mathbf{F_C}$, and the resultant force $\mathbf{F_R}$. The direction of $\mathbf{F_R}$ is measured clockwise from the positive x-axis. GIven forces/angles are as follows:

$\mathbf{F_R}$ = 800 *N*, θ_R = 35 º, $\mathbf{F_B}$ = 650 *N*, θ_B = 60 º, $\mathbf{F_C}$ = 400 *N*, **x,y,h** = 3,4,5, respectively.

(ans: $\boldsymbol{F_A}$ = 711 N, $\theta_{\boldsymbol{A}}$ = 36.6 º)

Select problem completion status from drop-down list:

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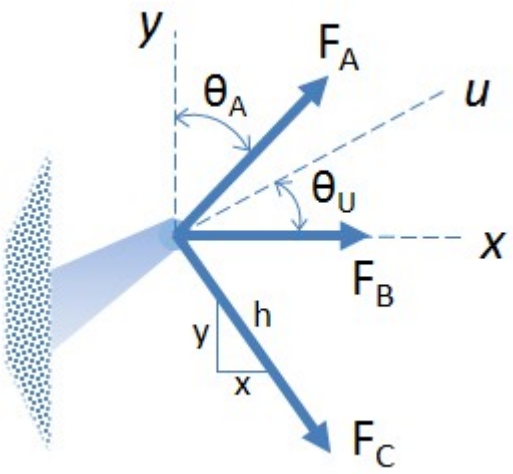
Question 3: (10 points)



Find the magnitude and direction of force $\mathbf{F_A}$ such that the resultant force on the bracket is directed along the positive *u*-axis. GIven forces/angles are as follows:

$\mathbf{F_R}$ = 450 *N*, θ_U = 35 º, $\mathbf{F_B}$ = 220 *N*, $\mathbf{F_C}$ = 280 *N*, **x,y,h** = 5,12,13, respectively.

(ans: $\boldsymbol{F_A}$ *= 518 N,* $\theta_{\boldsymbol{A}}$ *= 4.53 º)*

Select problem completion status from drop-down list:

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