

CMGT 340

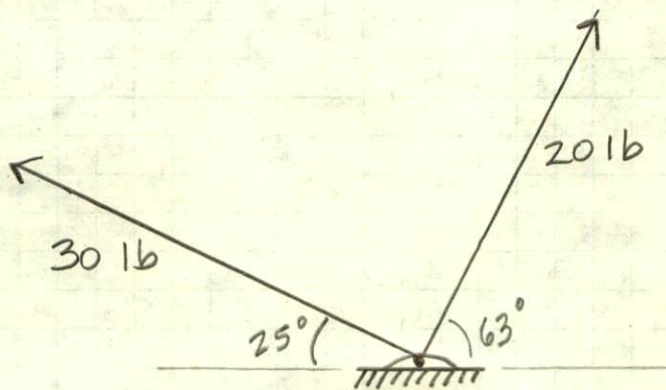
Exam #1

Fall 2019

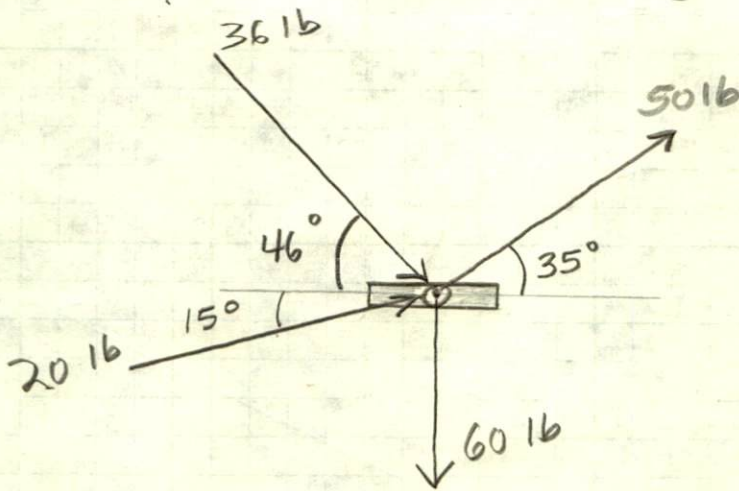
Show all work for full credit. All angles are to be measured ccw from the + x-axis. All vectors are to be positive scalar, True direction.

Name _____

1. Determine the resultant of the two forces acting on the clip using trigonometry (parallelogram Law or Triangle Rule)



2. Determine the resultant of the forces acting on the bracket by completing the following



Force	Dir (θ)	$F_x = F \cos \theta$	$F_y = F \sin \theta$
		$\Sigma F_x =$	$\Sigma F_y =$

Magnitude

$R_x = \Sigma F_x =$ _____

$R_y = \Sigma F_y =$ _____

} Resultant lies in Quad _____

$R =$ _____

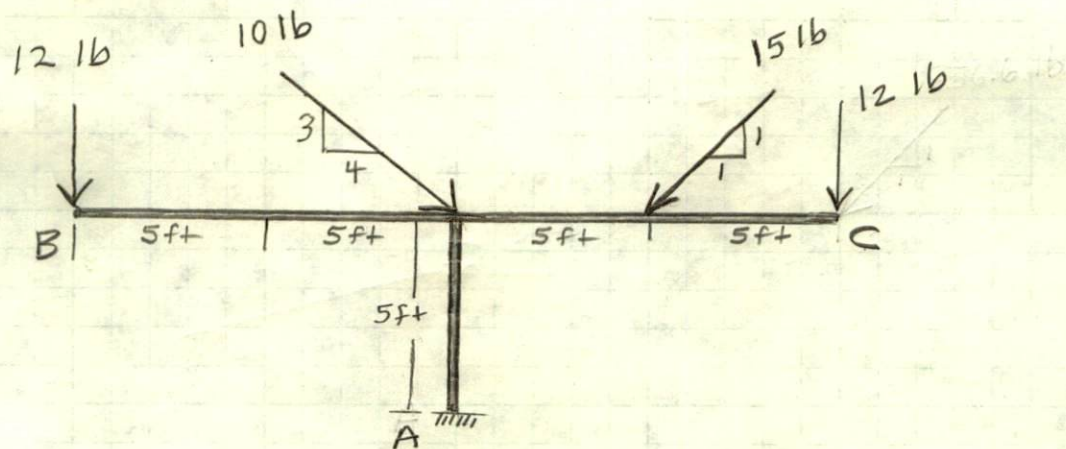
Direction

$\alpha =$ _____

$\theta =$ _____

ANS.

3. Determine the moment due to the forces acting on the bracket as shown below:



A. $M_B =$

B. $M_A =$

C. $M_C =$

c. $M_C =$

4. Determine the magnitude, direction, and location of the resultant force for the force system shown wrt pt A.

