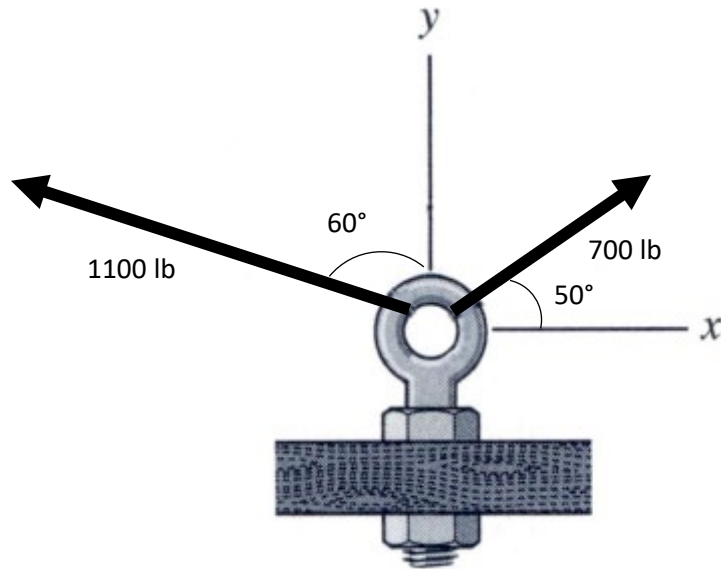


**SHOW ALL WORK FOR FULL CREDIT. DO YOUR OWN WORK.**

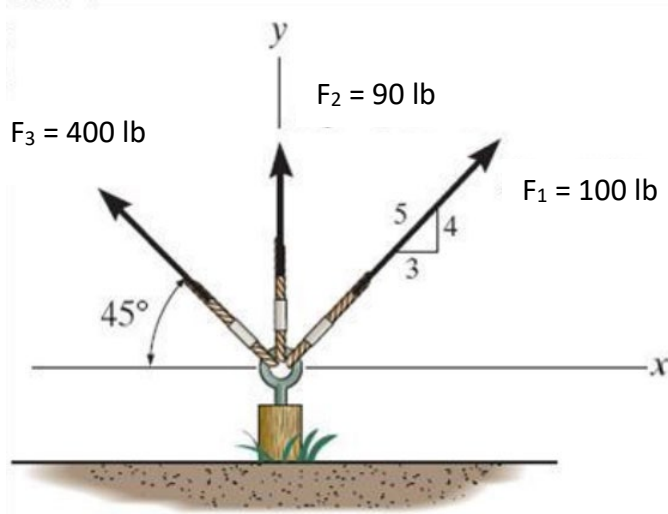
Name: \_\_\_\_\_

1. Determine the magnitude and direction of the resultant for the two forces acting on the screw eye using either the parallelogram Law or the triangle rule.



Solution.

2. Determine the magnitude and direction of the resultant for the forces acting on the tent stake by completing the following. Round all answers to whole numbers. All angles are to be measured CCW from the + x-axis.



Force (lb)	Direction ( $\theta^\circ$ )	$F_x = F \cos\theta$	$F_y = F \sin\theta$
		$\Sigma F_x$	$\Sigma F_y$

**Magnitude**

$R_x = \Sigma F_x =$  \_\_\_\_\_  
 $R_y = \Sigma F_y =$  \_\_\_\_\_
 } Resultant lies in QUAD \_\_\_\_\_  
 $R = \sqrt{R_x^2 + R_y^2} =$  \_\_\_\_\_

**Direction**

$\alpha = \tan^{-1} \left| \frac{R_y}{R_x} \right| =$  \_\_\_\_\_  
 $\theta =$  \_\_\_\_\_

**ANS**