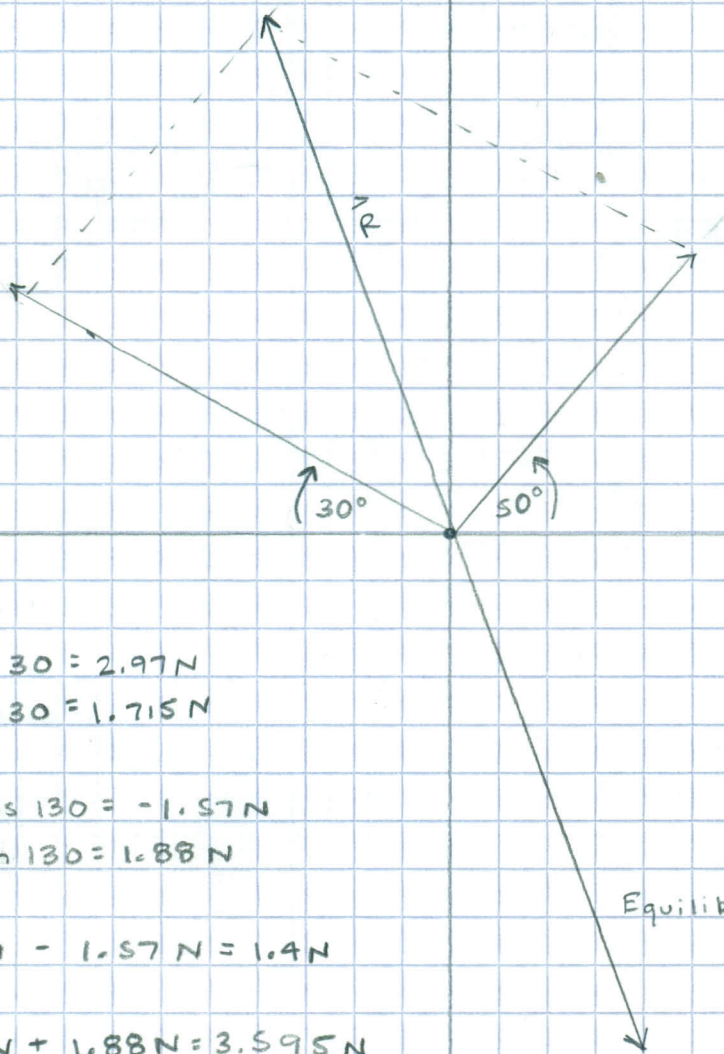


## GRAPH



## MATH

$$F_{1x} = 3.43 \text{ N} \cos 30 = 2.97 \text{ N}$$

$$F_{1y} = 3.43 \text{ N} \sin 30 = 1.715 \text{ N}$$

$$F_{2x} = 2.45 \text{ N} \cos 130 = -1.57 \text{ N}$$

$$F_{2y} = 2.45 \text{ N} \sin 130 = 1.88 \text{ N}$$

$$\sum F_x = 2.97 \text{ N} - 1.57 \text{ N} = 1.4 \text{ N}$$

$$\sum F_y = 1.715 \text{ N} + 1.88 \text{ N} = 3.595 \text{ N}$$

$$F = \sqrt{(1.4 \text{ N})^2 + (3.595 \text{ N})^2} = 3.86 \text{ N}$$

$$\theta = \tan^{-1} \frac{3.595 \text{ N}}{1.4 \text{ N}} = 68.7^\circ$$

## PERCENT ERROR

$$F_1 \left[ \frac{(3.969 - 3.86)}{3.86} \right] \times 100 =$$

2.8%

$$F_2 \left[ \frac{(3.85 - 3.86)}{3.86} \right] \times 100 =$$

0.26%

1 block = 0.5 N

1 block = 0.5 cm