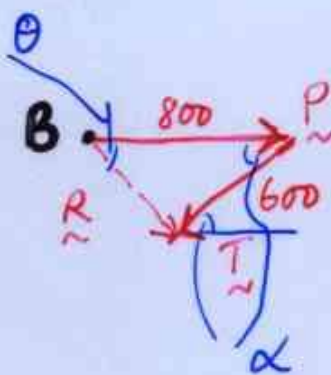


GEOMETRY

Calculate α as before.

Cosine law gives:

$$R^2 = 600^2 + 800^2 - 2 \cdot 600 \cdot 800 \cos \alpha$$

$$\Rightarrow R = \underline{524 \text{ N}}$$

Sine law gives:

$$\frac{600}{\sin \theta} = \frac{524}{\sin \alpha} \Rightarrow \theta = \underline{48.6^\circ}$$