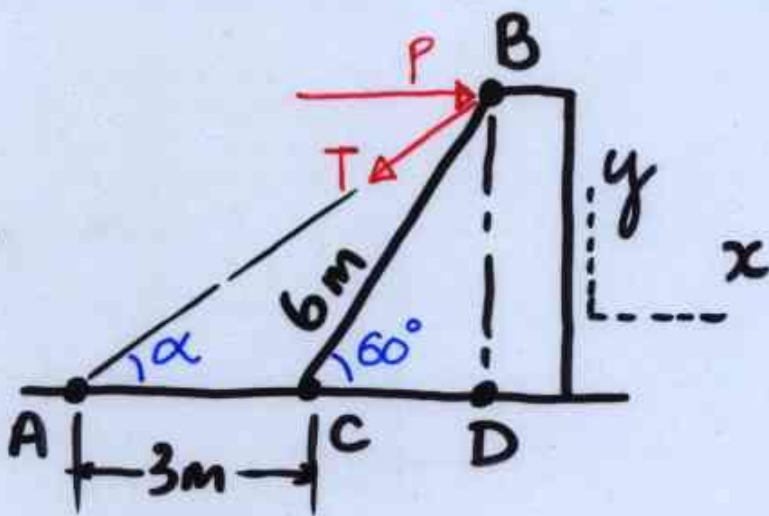
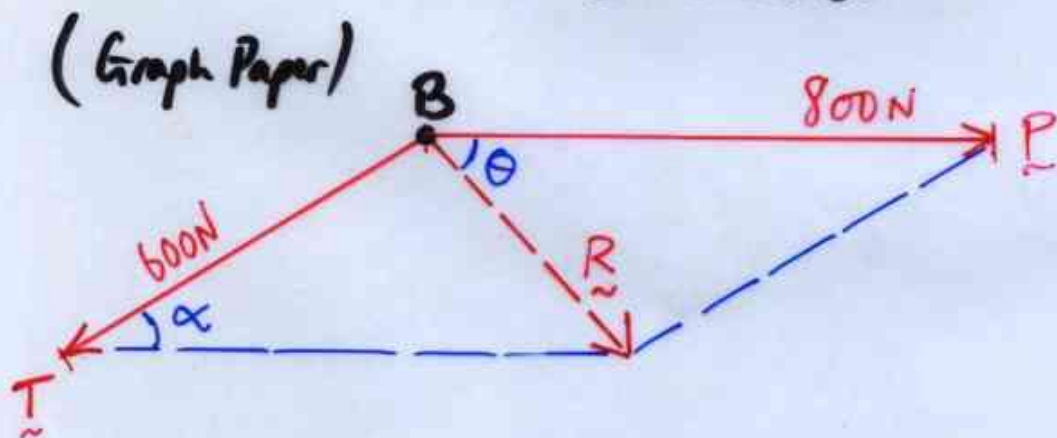


EXAMPLE

Combine the two forces,  $P = 800\text{ N}$  and  $T = 600\text{ N}$ , into a single equivalent force,  $\vec{R}$ .

GRAPHICAL SOLN

$$\begin{aligned} \tan \alpha &= \frac{|BD|}{|AD|} \\ &= \frac{6 \sin 60^\circ}{3 + 6 \cos 60^\circ} \Rightarrow \alpha = 40.9^\circ \end{aligned}$$



Measuring length and angle gives:

$$R \approx \underline{525\text{ N}}$$

$$\theta \approx \underline{49^\circ}$$