

(i) Object in EQ. find X and T using **Vector Resolution**

Vertical plane $T \cos 40^\circ = 50$

$$T = 65.3 \text{ N}$$

Horizontal plane

$$X = T \sin 40^\circ$$

$$X = 65.3 \sin 40^\circ$$

$$X = 42 \text{ N}$$

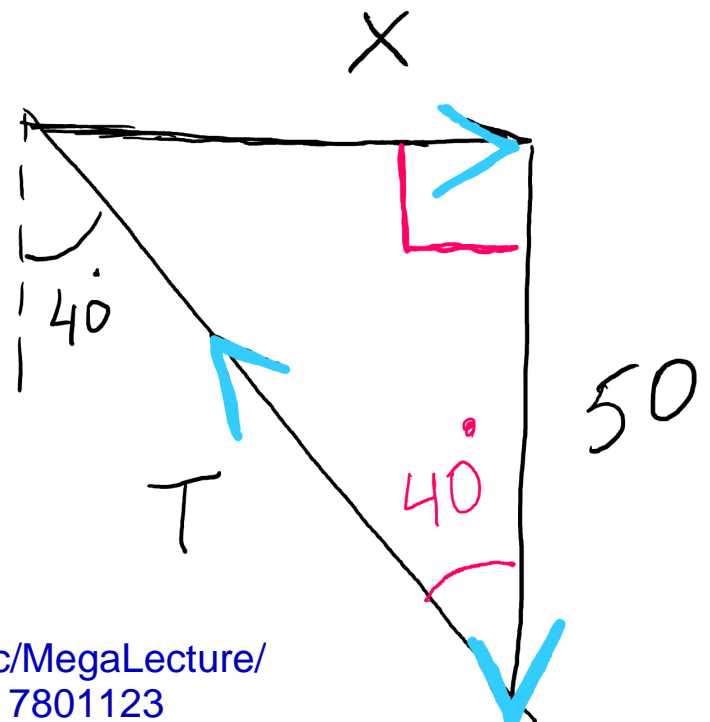
(ii) Use **Vector Δ** for **EQ** to confirm the values for X & T .

$$\cos 40^\circ = \frac{50}{T}$$

$$T = 65.3 \text{ N}$$

$$\sin 40^\circ = \frac{X}{T}$$

$$X = 42 \text{ N}$$



$\angle 40^\circ$ cuz alt \angle s

Mega Lecture