

(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

$X = T \sin 40^\circ$

$X = 65.3 \sin 40^\circ$

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

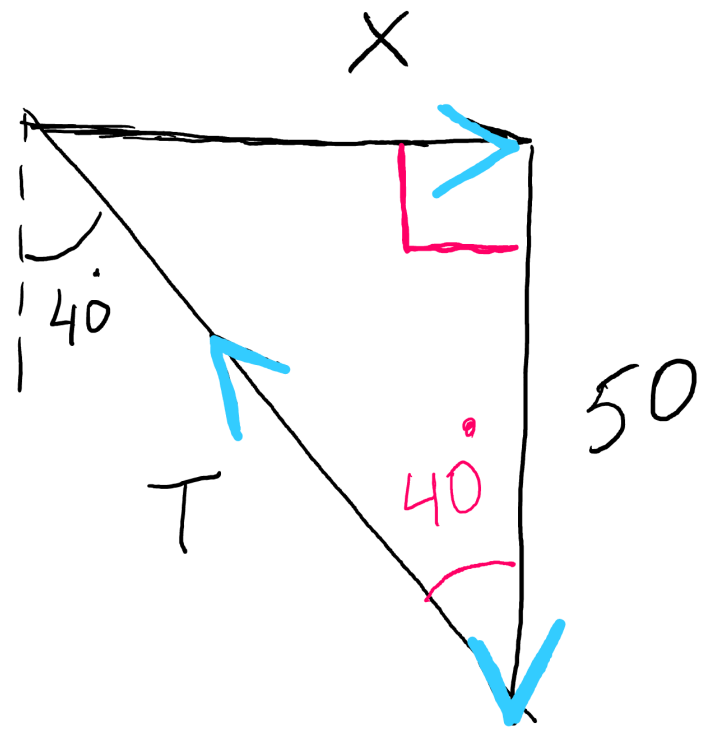
(ii) Use **Vector Δ** for EQ to confirm the values for X & T.

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

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

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

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



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