Find the tension in both ropes.

$50°$

T_2

$70°$

T_1

$10\,kg$

$F_g = mg = (10)(9.8) = 98N$ ✓

T_1

$70°$

$70°$ $\begin{array}{c}20°\\50\end{array}$ ✓

F_g

$40°$ $50°$

T_2
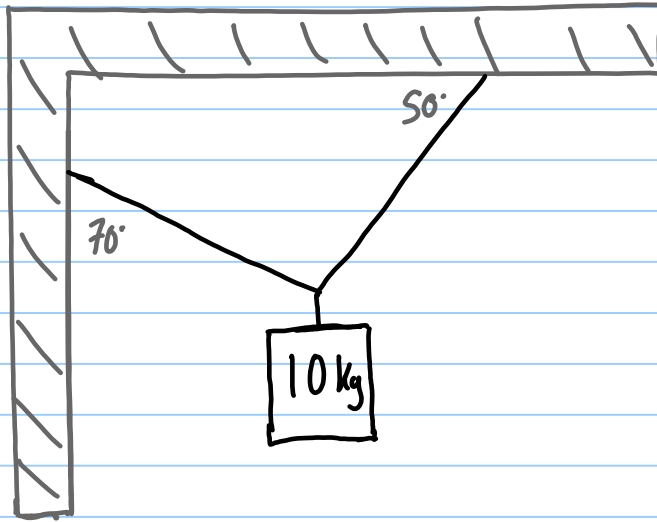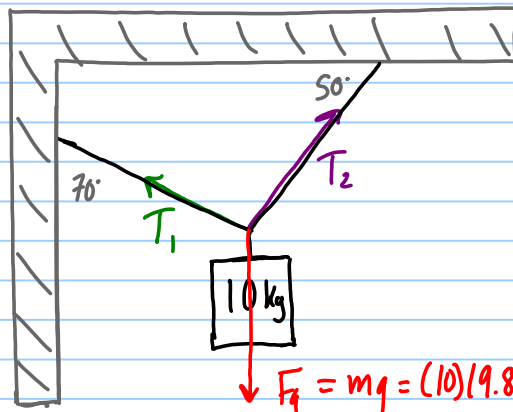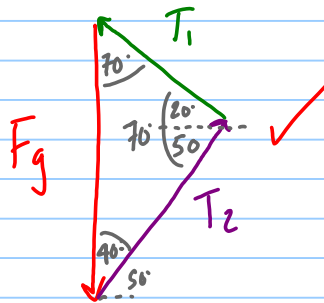
$\dfrac{T_2}{\sin 70°} = \dfrac{F_g}{\sin 70°}$

$\therefore T_2 = F_g = 98N$ ✓

$\dfrac{T_1}{\sin 40°} = \dfrac{F_g}{\sin 70°}$ $\quad T_1 = F_g \dfrac{\sin 40°}{\sin 70°}$ ✓

$= 67N$ ✓