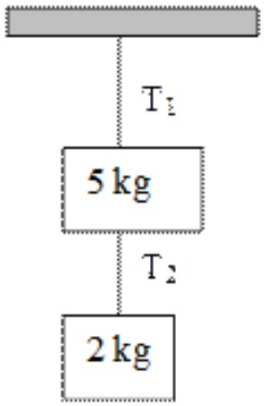
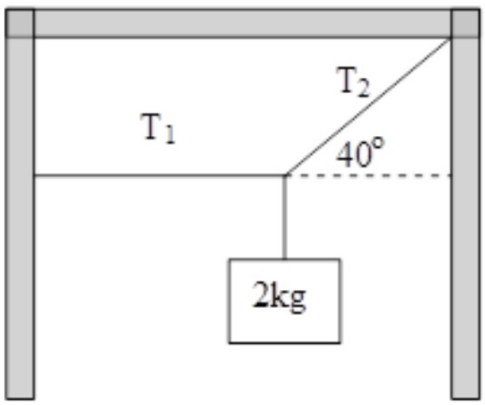
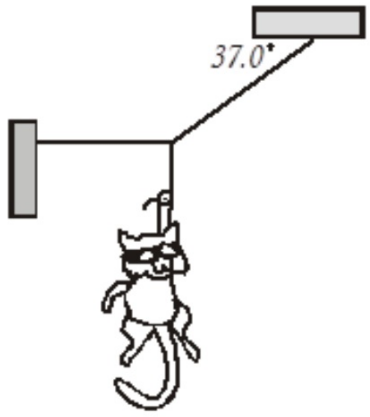
1. Find T_1 and T_2.



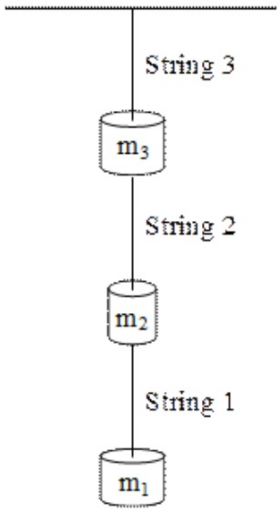
2. Find T_1 and T_2.



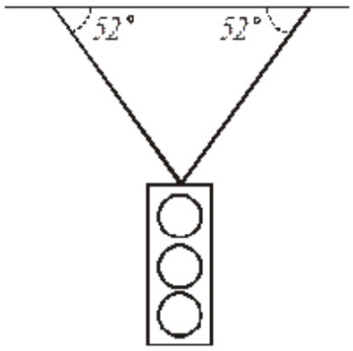
3. Find the tension in each cable supporting the 600.0 N cat burglar.



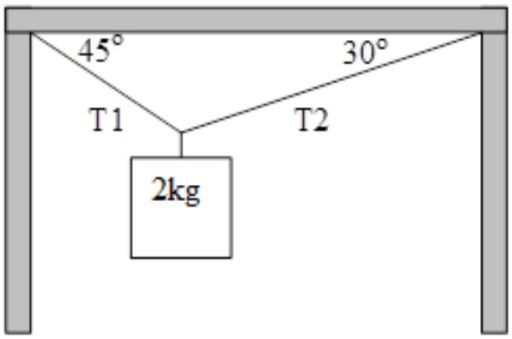
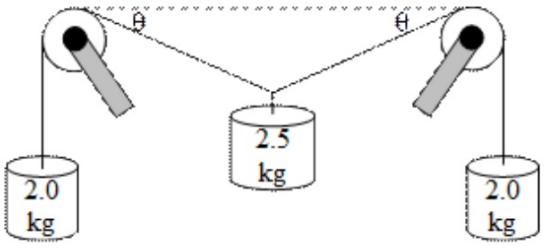
4. Three masses hang on three strings as shown. Find the tension in the three strings. **Express your answer in terms of m_1, m_2, m_3, and *g* only.**



5. A 46.5 kg traffic light hangs from two cables which are at the angles shown. Calculate the tensions in the two cables.



6. Find T_1 and T_2.



Challenge: Two 2.0 kg masses are connected by a string and hung over two pulleys. A 2.5 kg mass is then hung between the pulleys, which causes the rope to sag. Find the angle.