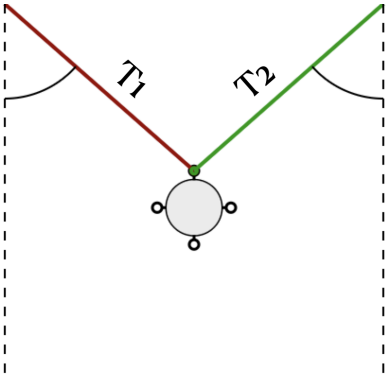
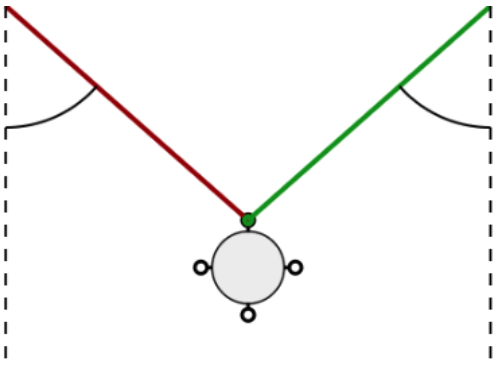
Static Equilibrium Level 2

Step 1: The picture to the right shows an object being held in place by two ropes. Fill in the mass of your object and the angles the ropes make with the vertical. Then draw in force vectors for the three forces that are present in the system. Then neatly show your calculation for the force of gravity on the object.



Step 2: Show the components for the force vectors for the tension in each rope. Label the components T_{1y} and T_{1x} and T_{2y} and T_{2x}. Then use $\Sigma Fy = 0$ to solve for T_{1y} and T_{2y}



Step 3: Now find T_1 and T_2. Show this calculation neatly below. Enter your answers into your program to make sure you did everything correctly