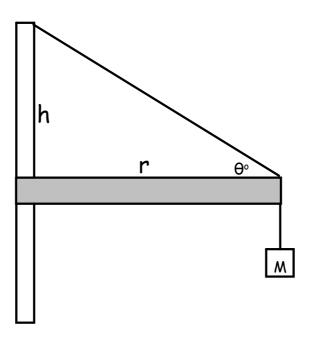
Physics 122: Torque Problem Assignment	Name
Due:	/30

a) Derive a formula for tension, T, as a function of beam length, r, given the beam has a mass per unit length, μ , a mass, M, hanging at the end of the beam, a gravitational acceleration, g, and the wire attaches at a point, h, above the left end of the beam.

b) If the wire in use will break at 1.50×10^4 N, determine the maximum length of the beam given the constants: μ = 14.0 kg/m; M = 4.50 × 10² kg; h = 12.0 m; g = 9.81 m/s².



•