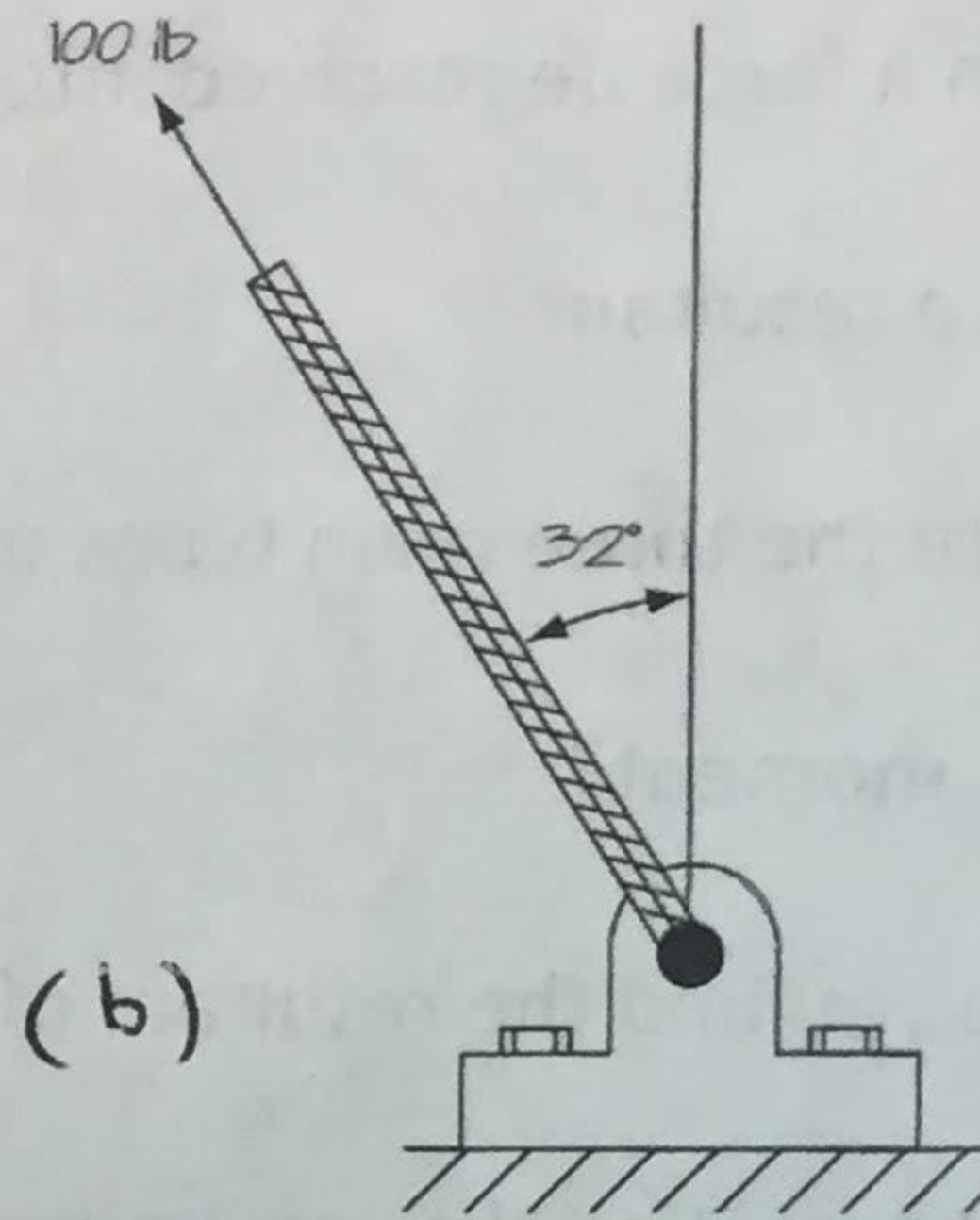
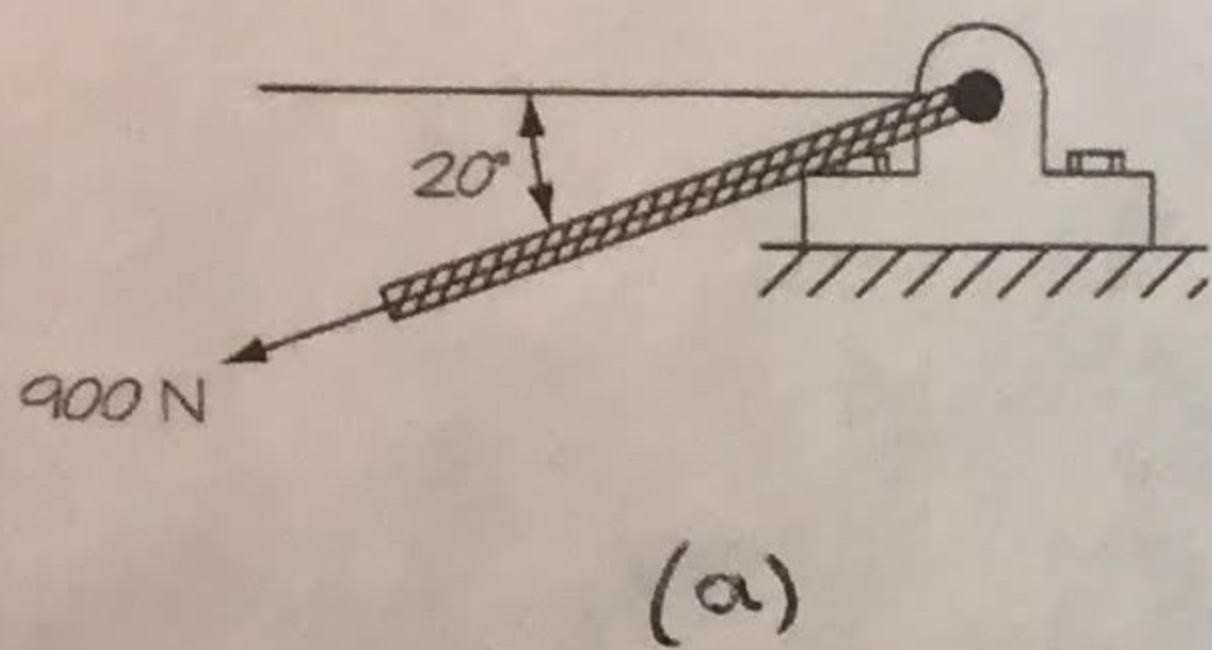


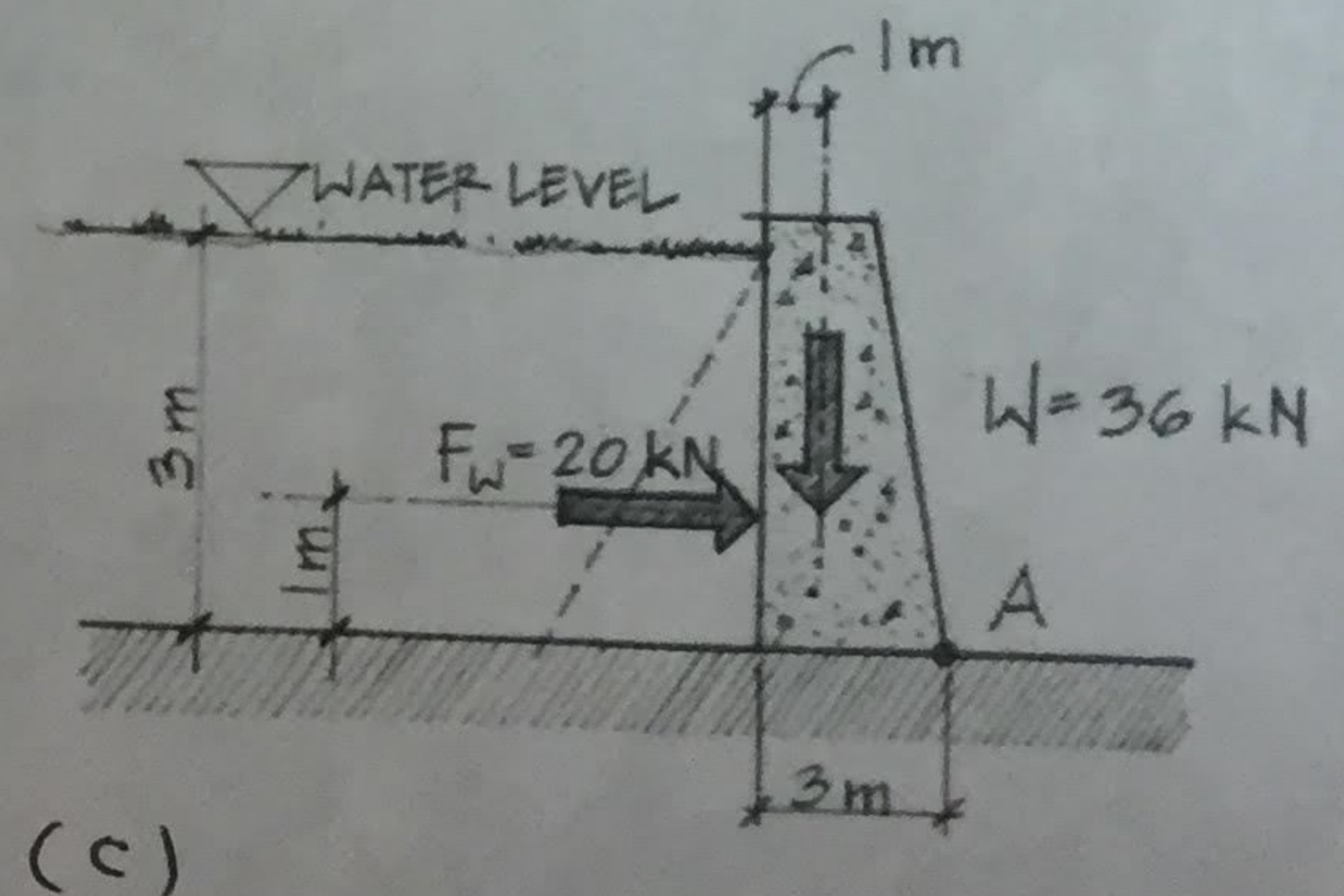
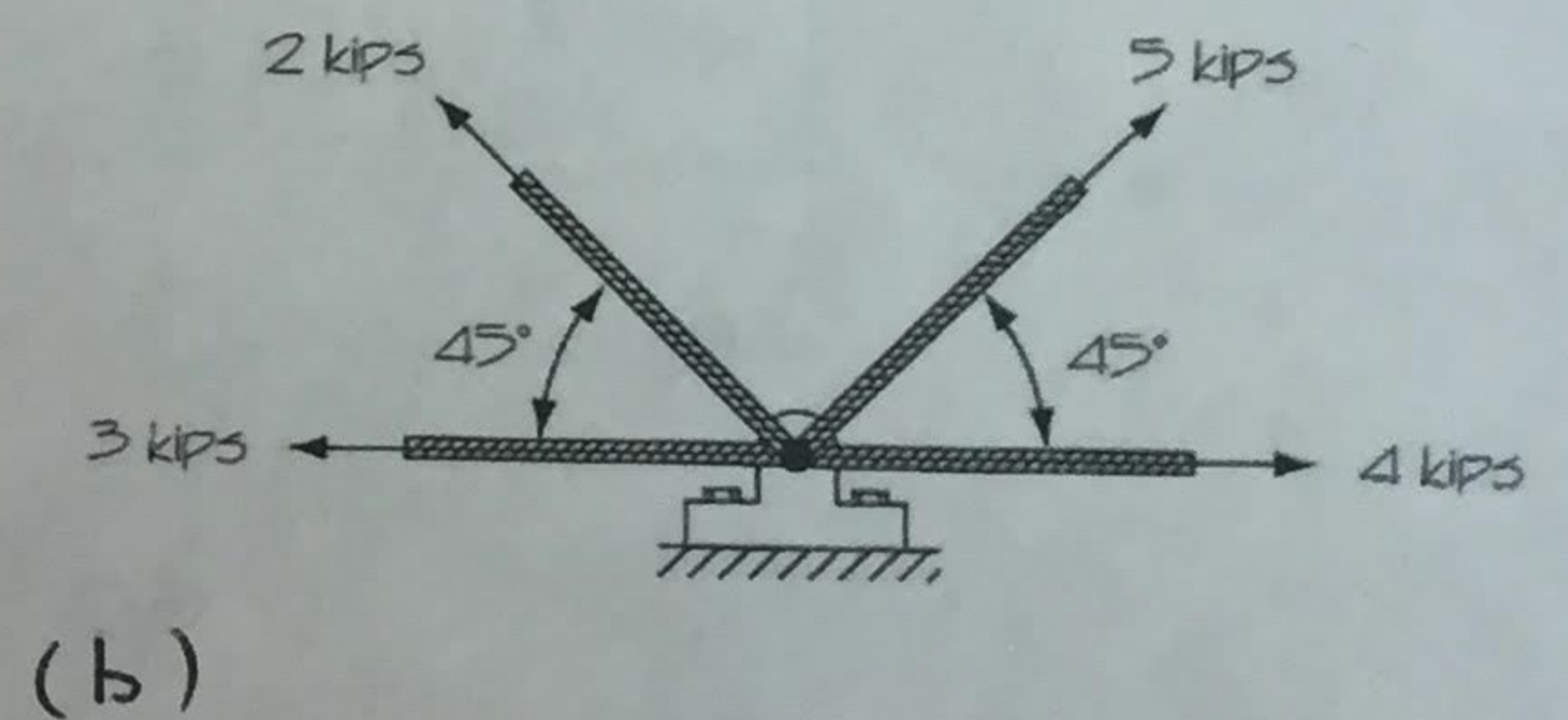
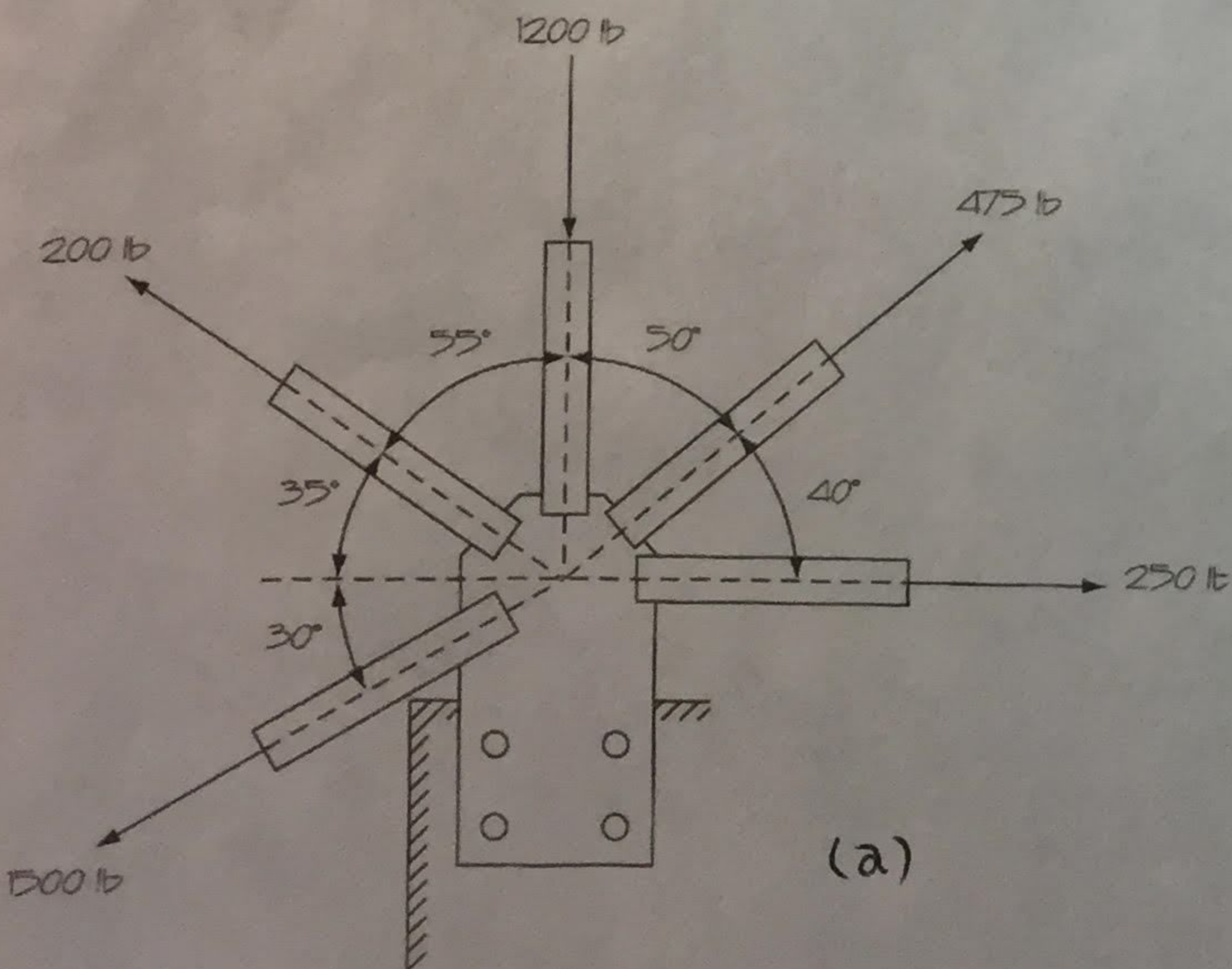
Assignment #1

- Convert each of the following and express the answer using an appropriate prefix: a) 175 lb/ft³ to kN/m³, b) 6 ft/h to mm/s, c) 835 lb-ft to kN-m.
- The specific weight of brass is 520 lb/ft³. Determine the density (mass/volume) in SI units.
- Determine the mass in kilograms of an object that has a weight of a) 20 mN, b) 150 kN, c) 60 MN.



4 a and b. For the two connection diagrams shown above, (a) and (b) determine the horizontal and vertical components of the force vectors.

5 a and b. Determine the forces that are required to ensure the two connections in problem 4 will be in equilibrium (don't move).



6 a, b, c. For the diagrams shown above, determine the resultant of the force vectors.