Complete the following lifting capacity problems and clearly place your answer in the box provided. Be sure to show your work, formulas used and each step taken to solve the problem. You may use your “riggers handbook” packet as a reference to sling capacities and formulas.

1. \(15\text{ft}\)
   \[\begin{array}{c}
   \text{6 ft} \\
   \text{A} \\
   \text{2,200 lbs}
   \end{array}\]

   a. Determine the horizontal angle \(A\): 

   b. Determine the weight on each sling leg:

   c. What is the minimum diameter of 6 x 19 IWRC required for this lift?

2. \(50°\)
   \[\begin{array}{c}
   \text{A} \\
   \text{5,342 lbs}
   \end{array}\]

   a. Determine the horizontal angle \(A\):

   b. Determine the weight on one sling leg:

3. 
   \[\begin{array}{c}
   \text{A} \\
   \text{Combined Rigging is 600 lbs,} \\
   \text{8 pieces of 3" ID schedule 40 steel pipe 15 ft long} \\
   \text{6 pieces of 2" ID schedule 40 steel pipe 12 ft long}
   \end{array}\]

   a. Determine the total weight of this load at point A:

   b. What is the minimum diameter of nylon fibre rope required for this lift?

Hint... use the OSHA Stds