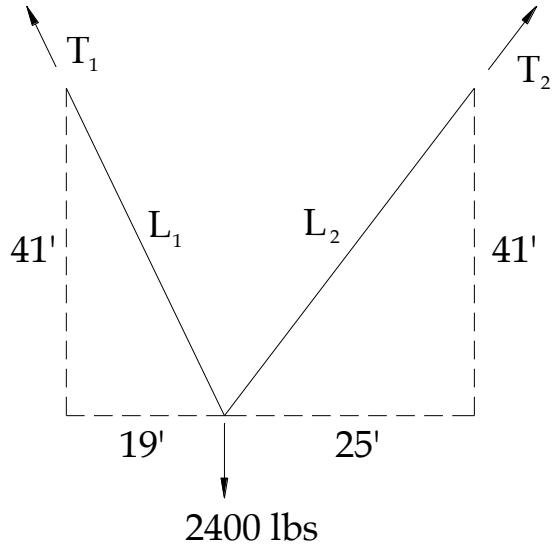
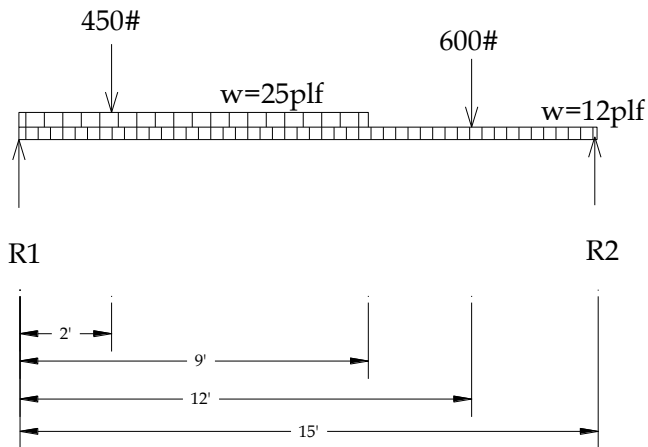


Name: _____

1) Find the length of and tension in each dead-hung bridle leg. Choose a size and termination style for the aircraft cable used to make the bridle legs. What design factor did you use?: (8 points)



2) Find the reactions for this free body diagram of a flying system. Choose a fiber rope strong enough to support the largest reaction. What design factor did you choose?: (8 points)



Show all your work!

3) Explain the difference between a fixed-speed and a variable speed powered rigging system? (4 points)

4) Explain the difference between a dead-haul powered rigging system and a motorized counterweight powered rigging system. (4 points)

5) In your own words, define the following terms: (6 points)

Design Factor:

Termination Efficiency:

Strong Enough:

Static Equilibrium:

Show all your work!