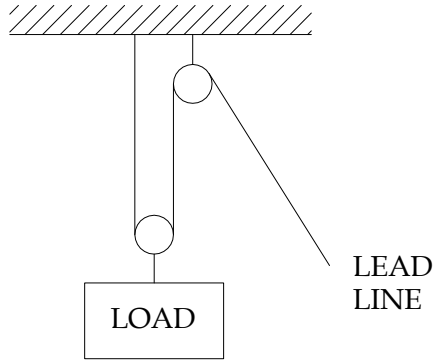
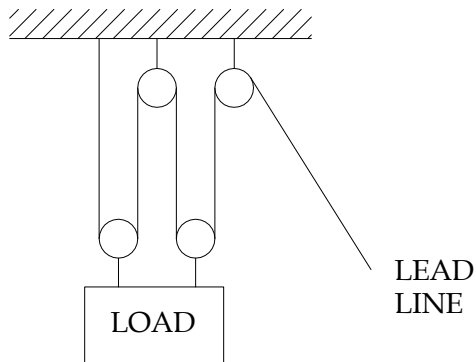


Name: _____

1) What is the *theoretical* mechanical advantage of this tackle? (2 points)



2) What is the *actual* mechanical advantage of this tackle (from the *Stage Rigging Handbook* tables)? The sheaves are plain bore (common bearing). What is the friction force of common bearings? (4 points)



3) What is the *R* value for a tackle with 5 parts of line and bronze bearing sheaves? What is the friction force of bronze bearings? (4 points)

Show ALL your work. Use WLL values from the Backstage Handbook

Check this box to receive credit for this assignment.

4) What is the maximum weight that can be lifted by a tackle with 3 parts of line, rigged with $\frac{3}{4}$ " manila rope and plain bore sheaves? Assume the lead line pull is equal to the WLL of the rope. (4 points)

5) What is the lead line pull needed to lift 1200# in a system with 6 parts of line on sheaves with normal ball bearings? What kind of rope might you use? What is the total dynamic load? (4 points)

Show ALL your work. Use WLL values from the Backstage Handbook

Check this box to receive credit for this assignment.