

FRST 211 – Forest Measures III
Lab 2 – Grade Considerations

Determine the:

- proper species code,
- net measures (end measures to nearest rad, length to nearest 0.1 m),
- % volume available for lumber and
- highest potential grade.

Show all calculations, including units, in a neat and orderly fashion.

T = top end measure (rads) of log, R_T = top end measure (rads) of rot
B = butt end measure (rads) of log, R_B = butt end measure (rads) of rot
C = core of solid wood (rads)
D & E = length & width of “rot rectangle” in rads
 $L_{(A, B, C)}$ = Length (m) of log

- 1) Log A: Douglas-fir, $T = 25$, $R_T = 13$, $B = 31$, $R_B = 16$, $L = 11.0$
- 2) Log B: western hemlock, $T = 42$, $B = 50$, $R_B = 43$, $L = 9.2$
- 3) Log C: grand fir, $T = 17$, $B = 24$, $L_A = 4.8$, $L_B = 5.0$
- 4) Log D: western red cedar, $T = 46$, $B = 52$, $R_B = 40$, $C = 32$, $L = 12.0$
- 5) Log E: Sitka spruce, $T = 27$, $B = 33$, $R_B = 22$, $L_A = 5.0$, $L_B = 1.0$, $L_C = 5.0$
- 6) Log F: Yellow cedar, $T = 23$, $B = 28$, $D = 11$, $E = 4$, $L = 14.0$
- 7) Log G: White pine, $T = 32$, $B = 36$, $L = 8.7$, offset = 5cm
- 8) Log H: Mtn Hemlock, $T = 25$, $B = 32$, $L_A = 6.8$, $L_B = 2.2$
- 9) Log I: Amabilis fir, $T = 33$, $B = 38$, $C = 6$, $S = 9$ $L = 5.6$ (shake/check at both ends)
- 10) Log D: western red cedar, $T = 46$, $B = 52$, $C = 32$ at both ends, $L = 7.0$