

Textbook:

R. S. Figliola and D. E. Beasley, **Theory and Design for Mechanical Measurements**, John Wiley & Sons, Inc., 6<sup>th</sup> edition 2015.

Problem No	Answer	Remarks
5.4	For RPM=500, $u_{RPM}=\pm 5.59$ RPM	
5.9	In series, $u_R=\pm 70.7 \Omega$ In parallel, $u_R=\pm 35.36 \Omega$	Must also solve for the uncertainty using numerical method.
5.10	$(u_d)_1=\pm 0.07088$ kPa $(u_d)_2=\pm 0.0707$ kPa 3 ½ digit readout is adequate.	
5.13	$Nu=5\pm 0.385$	
5.17	For 3.5 cm reading, $u_d=0.0217$ cm	
5.18	For 1.72 cm reading, $u_{all}=\pm 0.0803$ cm	
5.23	$G=88.943\pm 2.154$ GPa	