MAE334 Quiz 8 - November 30th

1) What is the zero order uncertainty of a normal analog car speedometer with a ±4% accuracy and 5 MPH gradations at an average speed of 60 MPH?
   a) ± 2.4 MPH
   b) ± 2.5 MPH
   c) ± 4.8 MPH
   d) ± 5 MPH
   e) ± sqrt($2.5^2 + 2.4^2$)

2) Which of the following are effort variables?
   a) Temperature
   b) Velocity
   c) Pressure
   d) Heat Flux
   e) Force

3) What is the typical input impedance of a current ADC?
   a) 10^3 ohms
   b) 10^4 ohms
   c) 10^5 ohms
   d) greater than 10^6 ohms

4) A strain gauge should have a very low input impedance?
   a) True
   b) False

5) An ideal operational amplifier has the following characteristics
   a) zero input impedance
   b) infinite input impedance
   c) infinite gain
   d) infinite output impedance
   e) infinite bandwidth

6) The gain of standard inverting amplifier pictured here is
   a) R_1/R_2
   b) R_2/R_1
   c) $-R_1/R_2$
   d) $-R_2/R_1$
   e) $R_1R_2/(R_1 + R_2)$