LAB 12 QUESTIONS

Group:_____ Names:_____

(1) For part (2) at what frequencies did you see aliasing?

(2) For part (1), what would the voltage range need to be to get a quantization size less than 0.2mV? Is it possible to measure $2\sin(200\pi t)$ at this quantization size?

(3) What resolution A/D converter should be used to measure a signal that can range between -8V to 8V with an accuracy of 10mV?

(4) To measure the signal $2\sin(200\pi t)$, draw a wiring diagram showing how you would connect the function generator to the USB 6009 in Differential Mode.

(5) With the USB 6009 in Differential Mode, what two signals would need to be connected to AI+ and AI- to give a $15\sin(2\pi t)$ waveform? (Hint: see Section 12.5.)