

HW2 DNL and INL (100 points)

2.1. Determine the maximum DNL (in LSBs) for a 3-bit DAC. What is the ideal resolution of this DAC? (Assume 5 V V_{ref}) (50 points)

Digital Input	Voltage Output
000	0 V
001	0.625 V
010	1.5625 V
011	2.0 V
100	2.5 V
101	3.125 V
110	3.4375 V
111	4.375 V

2.2. Repeat the problem above to calculate INLs (in LSBs). (Assume 5 V V_{ref}) (50 points)