

Quiz 6
CMPE 364
Spring 2017

Name:
Student ID:

Consider an ADC configured with...

- $V_{ref+} = 5V$
- $V_{ref-} = 1V$
- 10-bit resolution

The 10-bit result is 0b0010000000 (128)

What is the analog voltage? Be sure to show your work.

We'll use the following equation:

$$\left(\frac{5 - 1}{1024} \right) * 128 + 1$$

Let's simplify it a bit...

$$4 * 128 / 1024 + 1$$

And a bit more...

$$512 / 1024 + 1 = 1.5 V$$