

1. Consider a system where the DAC is updated every 4 $\mu$ s (250 kHz) with a value from a 200-element wave table containing a single cycle of a waveform. What would be the frequency of the output wave?
  - a.  $250 \text{ kHz} / 200 = 1250 \text{ Hz}$
2. Consider that the ADC in 12-bit mode divides the input voltage range (0-3V) into 4096 steps (where 0V is 0, and 3V is 4095).
  - a. What is the voltage/measurement resolution (how much does the voltage change per bit) of the ADC?
    - i. 0.0007
  - b. What would be the ADC output value (nearest integer) if the input voltage was 1.75V?
    - i. 2389