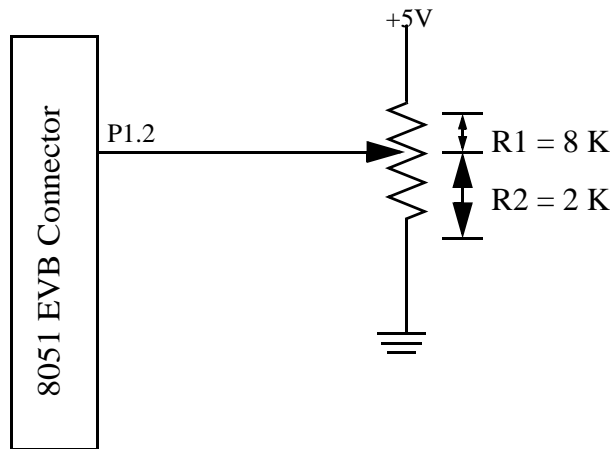


Laboratory Worksheet on A/D Conversion

1)



Answer the following questions based on the schematic above.

- Write a function `void Port_Init(void)` to configure P1.2 as an analog input.
- Write a function `void AD_test(void)` that performs A/D conversion on P1.2 and stores the result in variable `PI_2_Result`. Your program should set VREF to use internal voltage ref of 2.4 V, ADC gain should be set to 1 and enable ADC1.
- Based on the schematic, what is the voltage at P1.2?
- Once the AD conversion is complete as per in Part b, what value will be stored in the variable `PI_2_Result`. Assume that the voltage at P1.2 is still same as in Part c.
- If voltage at P1.2 is now changed to 3.53 V, what will be stored in `PI_2_Result`.