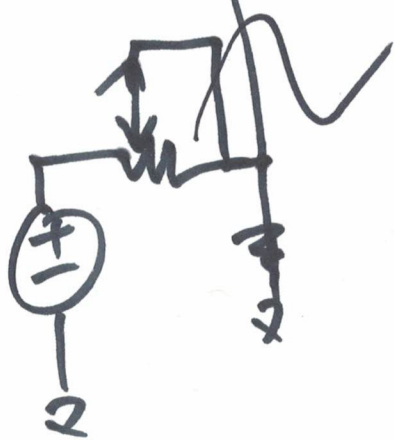
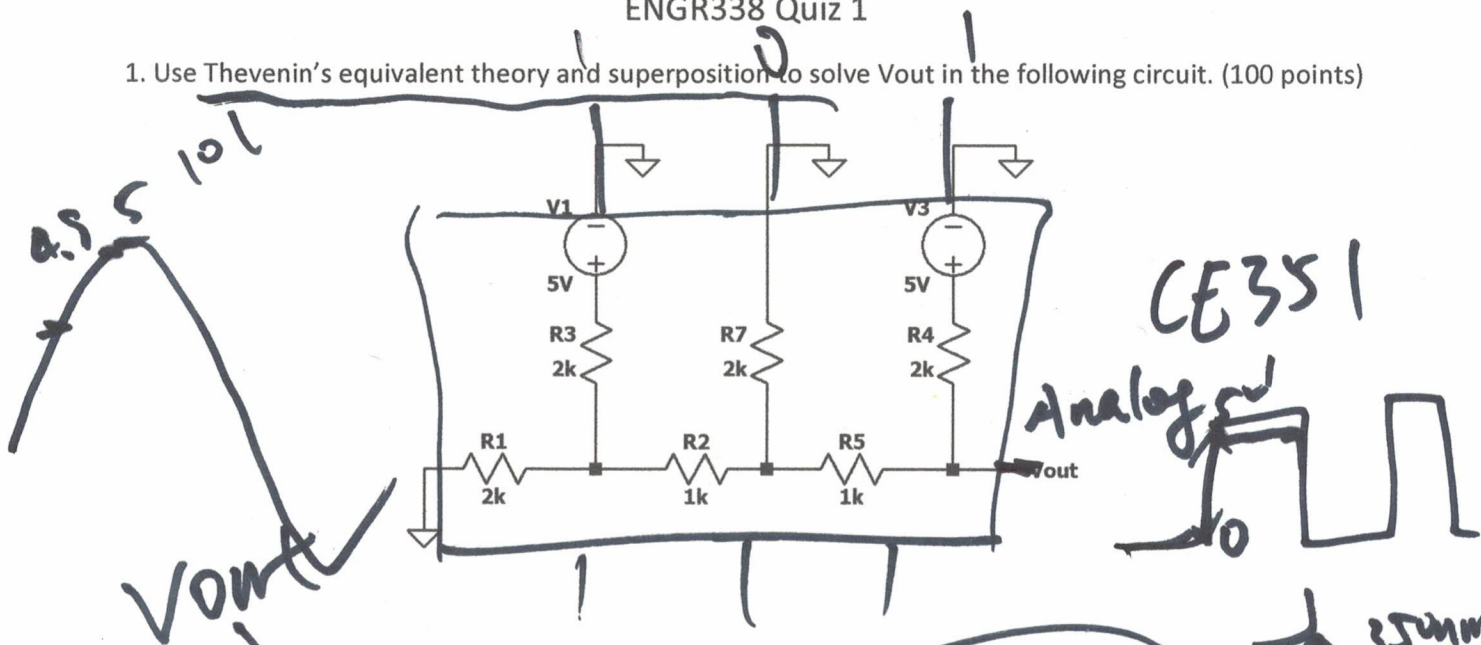


ENGR338 Quiz 1

1. Use Thevenin's equivalent theory and superposition to solve V_{out} in the following circuit. (100 points)



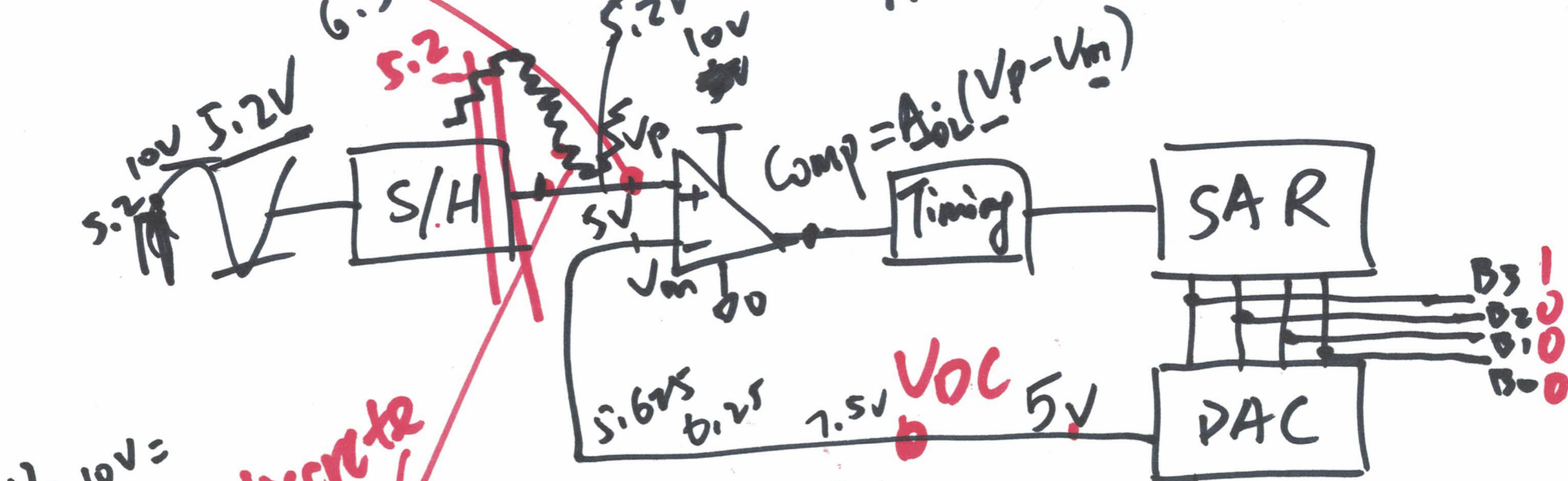
I_C
 I_{SDA}
 SCL
 350nm
 15 35nm
 Arduino
 6-12nm
 10-bit SAR

$$\frac{5 \times 5V}{2^3} = \frac{25V}{8} = 3.125V$$

$$\frac{1000 \times 10V}{2^4} = \frac{8}{16} \cdot 10V = 5V$$

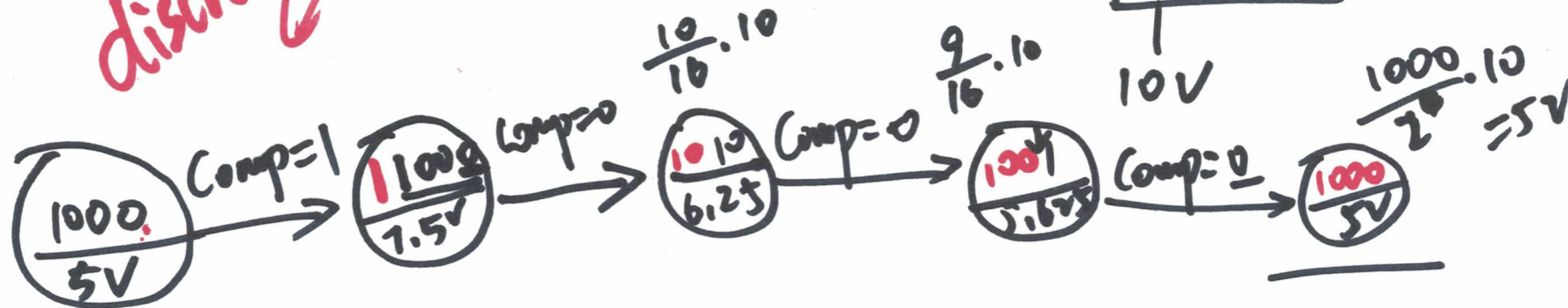
Architecture of the SAR ADC

SAR: Successive Approximation Register



$\frac{12}{16} \cdot 10V =$

discrete



$N+1$

The List of All Possible Combinations

