A hybrid DAC is shown below. Assume $n = 8$.

a. What is the resolution of the DAC?

b. In what order are the switches closed and opened?

c. Show the position of the switches for input codes 100...0 and 011...1.

d. Modify the DAC into a SAR ADC. Show the new circuit diagram.

e. In what order are the switches closed and opened in the ADC?

f. What are the requirements on the accuracy of the resistors and capacitors in order to guarantee monotone conversion for the ADC?