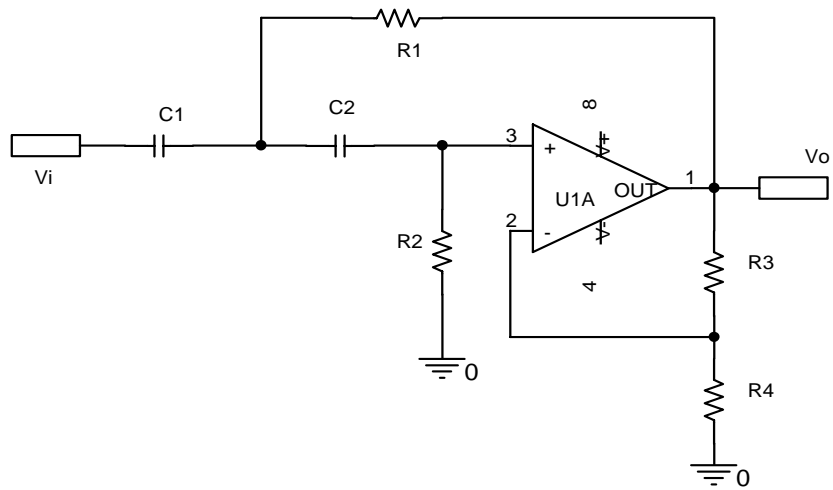
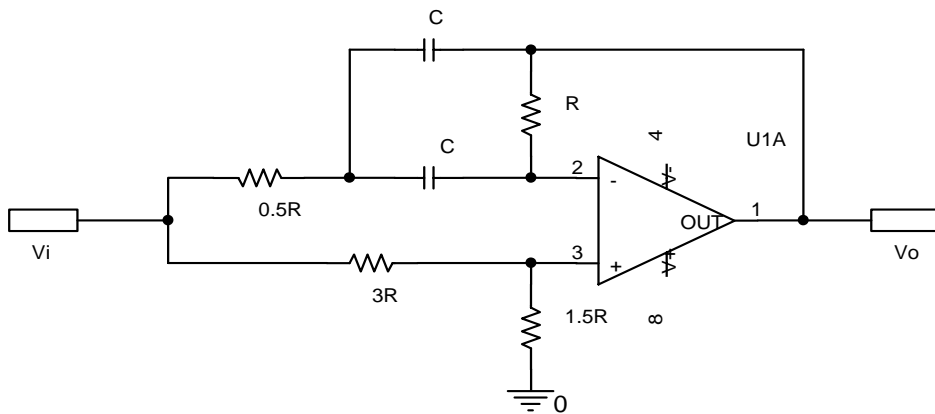


(1) 2 KRC



- (a) 가?
- (b) $f_0 = 100 \text{ Hz}$ $Q = 0.707$
 , equal component design
- (c) (b)

(2)



- (a) 가?
- (b)
- (c) 1 kHz sine cos

(3) (GBP) 10 MHz , a_0 가 120dB , f_a 가 10 Hz op amp
 가 .

(a) Open-loop gain $|a|_{dB}$.

(b) 1000 3 dB f_A 가 100 kHz
 , , loop gain 가

(c) 100 , 3 dB f_A 가 1 kHz
 , .

(4) .

(a) Hysteresis $-0.5 \sim +0.5$ V . , op amp
 ± 10 V 가 .

(b) VTC (voltage transfer curve) .

(c) 가 $\cos(2\pi \times 10t)$ V , .

(5) ,
 mmHg 가 0 - 200
 0.0025 V/mmHg .
 가 A/D

(a) 30 Hz . ADC
 anti-aliasing 1
 2 .

(b) (a) ADC .
 0.1 mmHg , bit ADC 가? , ADC
 가? , ADC
 가 ?

(c) 4-bit successive approximation ADC 0 - 5 V .
 3.127 V , ADC
 , ADC V