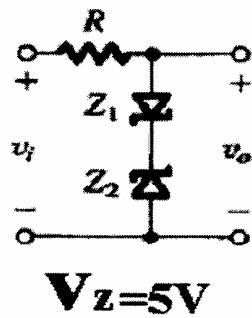


# HOMEWORK # 1

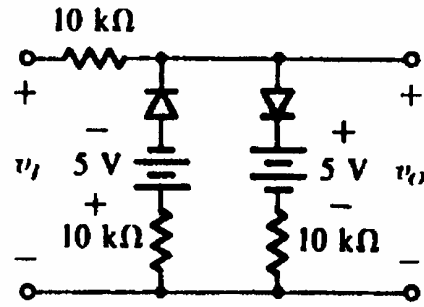
## Part A

For each circuit:

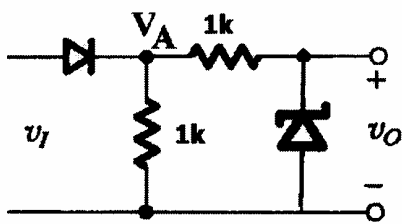
1. Finding voltage transfer characteristic (VTC).
2. Drawing output waveform given an input of  $15\sin(2\pi 1k)$



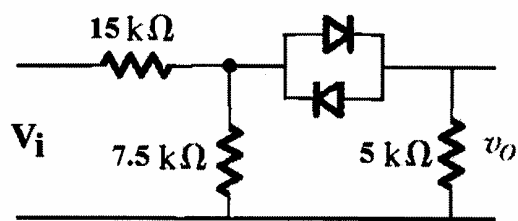
(a)



(b)



(c)



(d) (Hint use thevenin's theorem)

## Part B

Text Book: 3.9, 3.79(a), 3.93, 3.97 (Assume constant voltage drop models for both normal and zener diodes ( $V_Z = 8.3V$ ))