# Schmitt Triggers

1. Draw the circuit diagram of a two resistor Schmitt trigger.  
   It should have zero and twelve Volt power supply lines.  
   If Rf is 8kΩ and R1 is 7 kΩ, calculate the upper and lower switching threshold levels.
2. Draw the circuit diagram of a three resistor Schmitt trigger.  
   It should have minus twelve and plus twelve Volt power supply lines.  
   The non-inverting input has a voltage divider with 10kΩ to the plus twelve Volt power supply and 5kΩ to the minus twelve Volt power supply. If Rf is 8 kΩ, calculate the upper and lower switching levels.
3. Why are Schmitt trigger circuits useful?