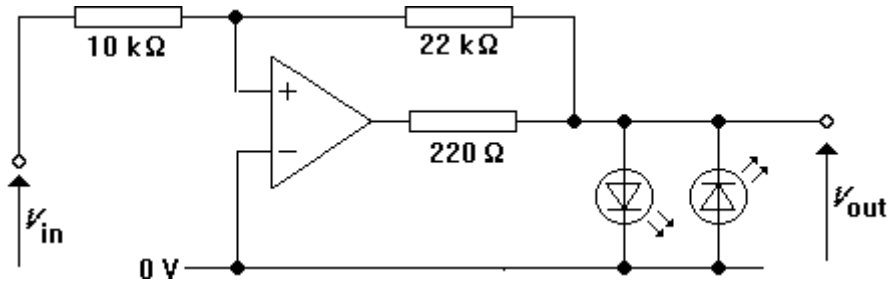
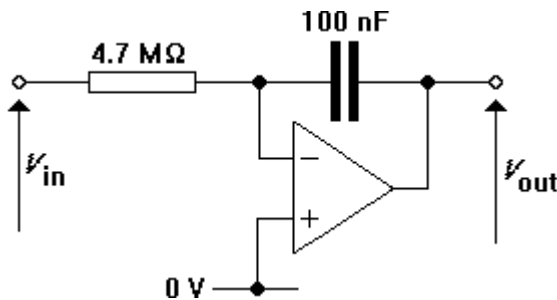


A triangle wave generator

1. Assemble the Schmitt trigger shown below. Test its operation by holding V_{in} at +5 V and -5 V in turn.



2. Assemble the ramp generator shown below. Test its operation by holding V_{in} at +5 V and -5 V in turn.



3. Now connect the two circuits together to generate a triangle wave. Use a double-beam oscilloscope to look at the input and output of the ramp generator. If all is well, the output should ramp back and forth between ± 1 V with a frequency of 1 Hz.
4. Replace the 4.7 MΩ resistor with 4.7 kΩ. With the help of the oscilloscope, sketch graphs on a single set of axes to show the waveforms at the output and input of the ramp generator.