Using open-collector output comparators, a single 15 VDC power source, a 5 resistor voltage divider with a total resistance of 10 Kohms, a 2 volt 20 mA LED, and a resistor to set the LED current to 20 mA, design one circuit that turns on the LED for two ranges of an input voltage $V_i$:

Assume that the comparator output voltage is 1 volt when sinking 20 mA.