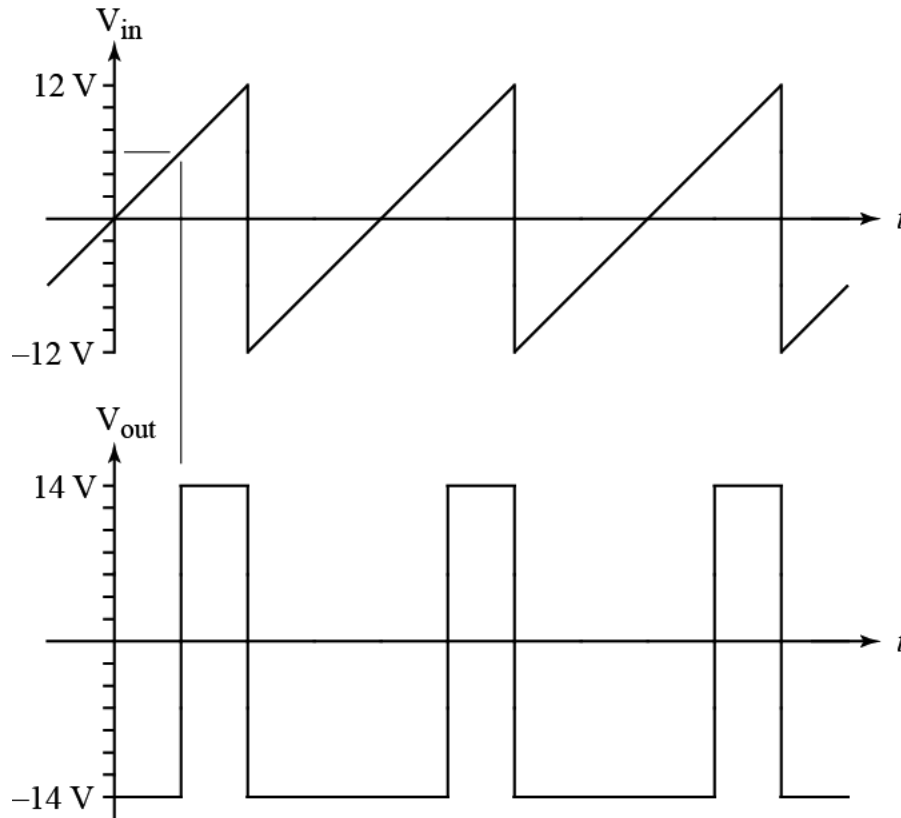
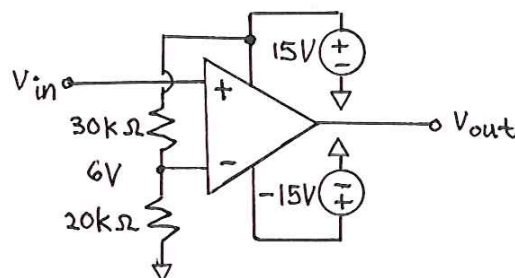


Ex:



Using op-amps, power supplies, and resistors, draw a circuit to produce  $V_{out}$  from  $V_{in}$ . (Assume you have a function generator that produces  $V_{in}$  for you to use.) Show all relevant information in your circuit, including power supply voltages for op-amps.

sol'n: We use a comparator circuit. The comparator should trip when  $V_{in} = 6V$ . The comparator power supply voltages should be (about) 1V higher than the desired 14V output voltage.



We can use a V-divider to create the 6V reference V.