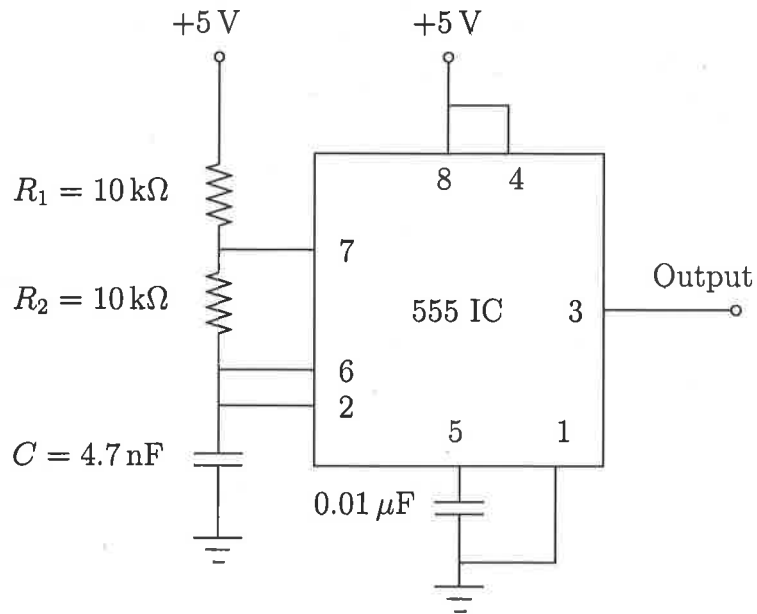
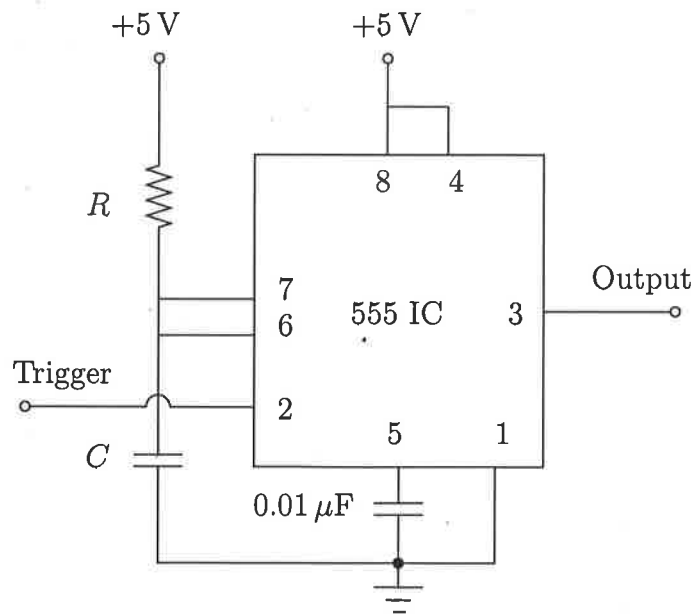
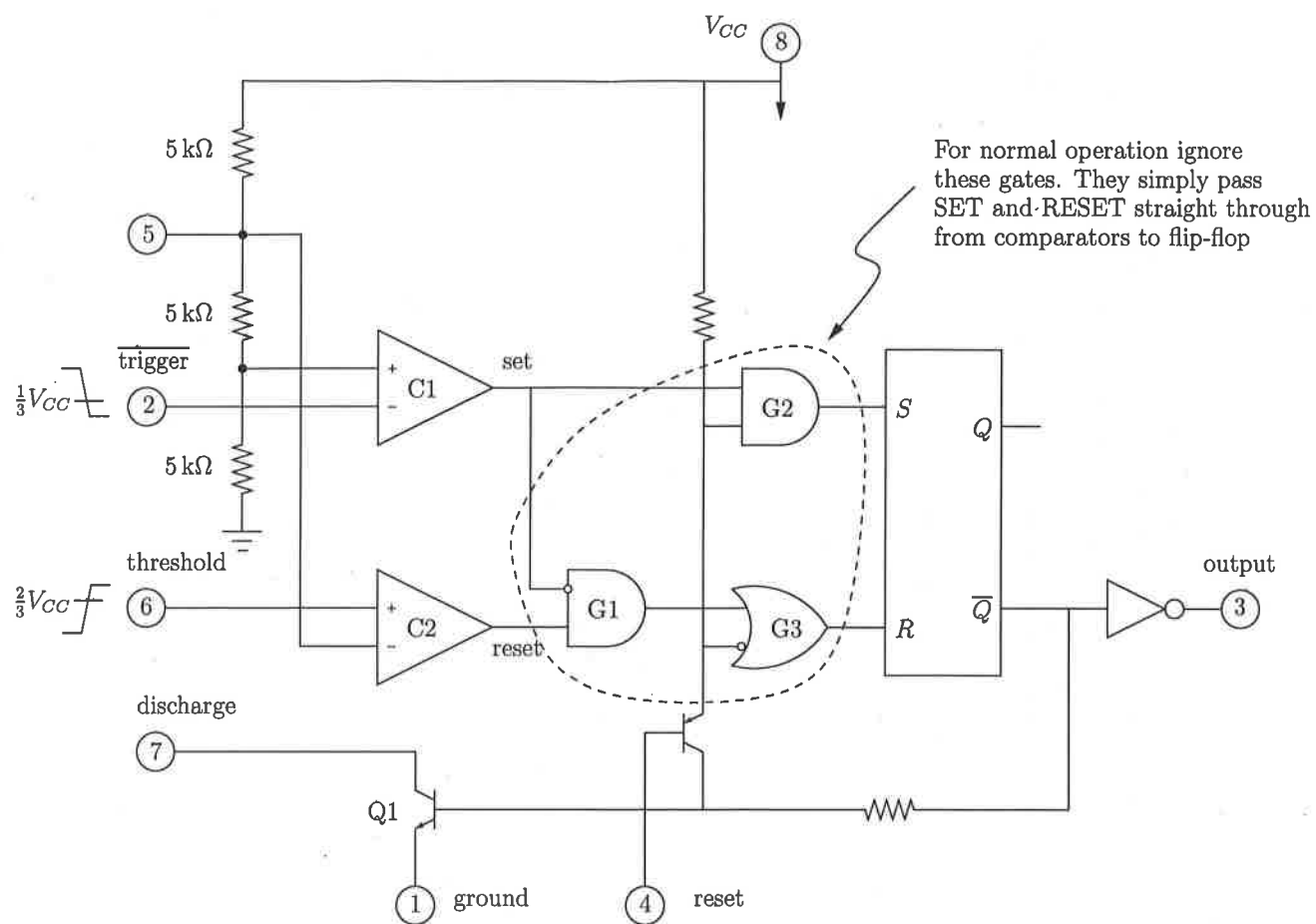


555 Chip used to make oscillator/clock

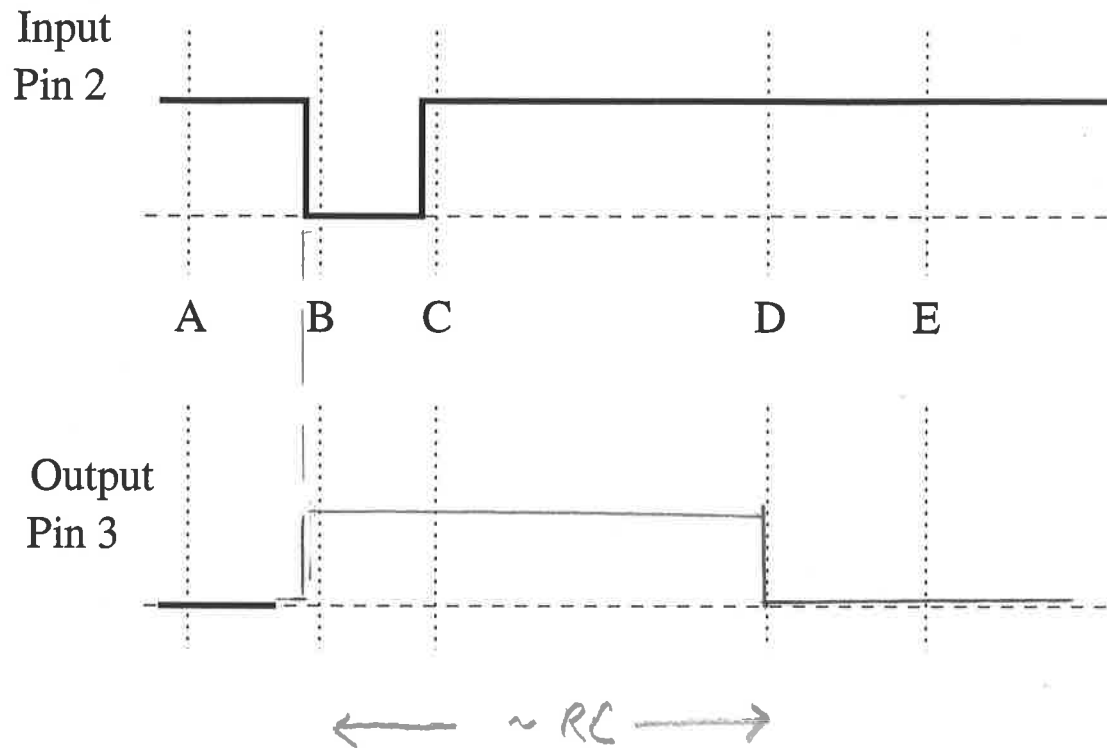


555 Chip used to make one-shot (monostable multivibrator)





What is the output of a one-shot for the illustrated input at pin 2 of the 555 chip?
(Assume that the duration of the "low" input is much less than the time RC .)



[illegible]

Comparator 1		Comparator 2		Logic					Tran.	
	+	<u>Pin 2</u>	<u>Pin 6</u>	-	S	R	Q	$\bar{Q}$	Q_1	V_{cap}
A	$V_L = \frac{5}{3}$	5	0	$\frac{2}{3}V_L = \frac{10}{3}$	STORE	0	0	0	$1 \Rightarrow ON \Rightarrow$	0
B	$\frac{5}{3}$		0 initially	$\frac{10}{3}$	 5V	0	0	1	$0 \Rightarrow OFF$	starts charging
C	$\frac{5}{3}$	5		$\frac{10}{3}$	STORE	0	0	1	$0 \Rightarrow OFF$	
D	$\frac{5}{3}$	5	$\frac{10}{3} + 5$	$\frac{10}{3}$	RESET	0	1	0	$1 \Rightarrow ON \Rightarrow$	immediate discharge to 0
E	$\frac{5}{3}$	5	0	$\frac{10}{3}$	STORE	0	0	0	$1 \Rightarrow ON \Rightarrow$	0

Special point; not arbitrary

