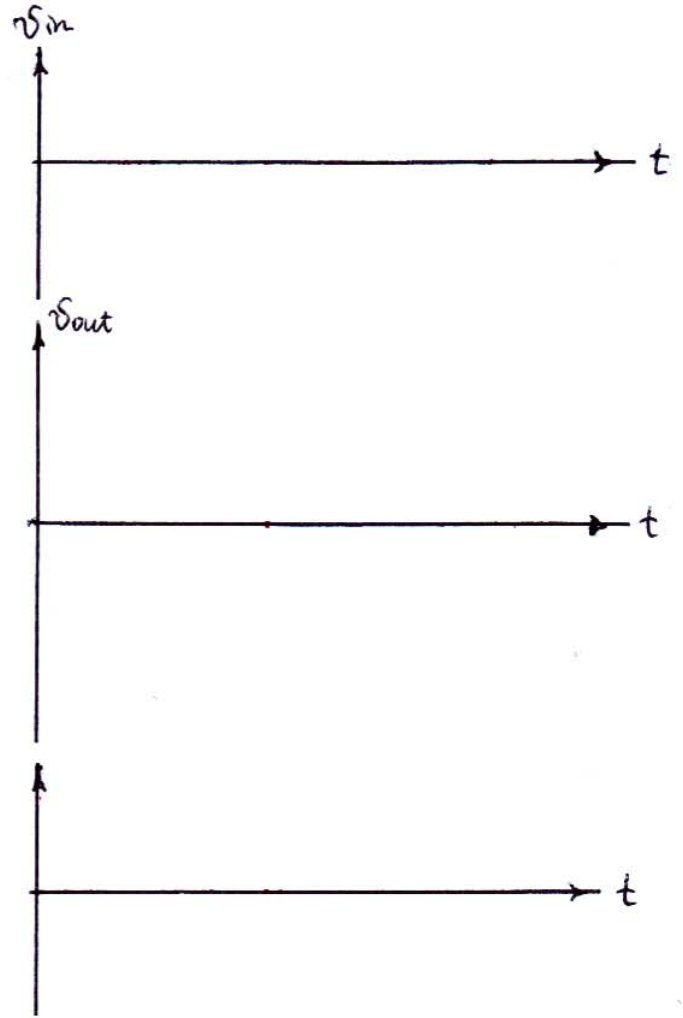
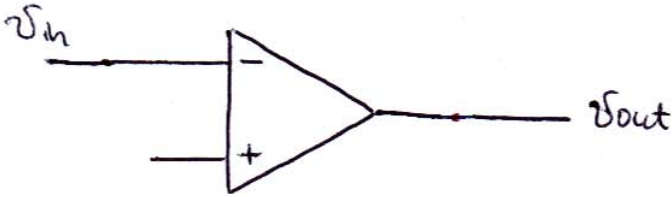


Lecture 6

Schmitt trigger

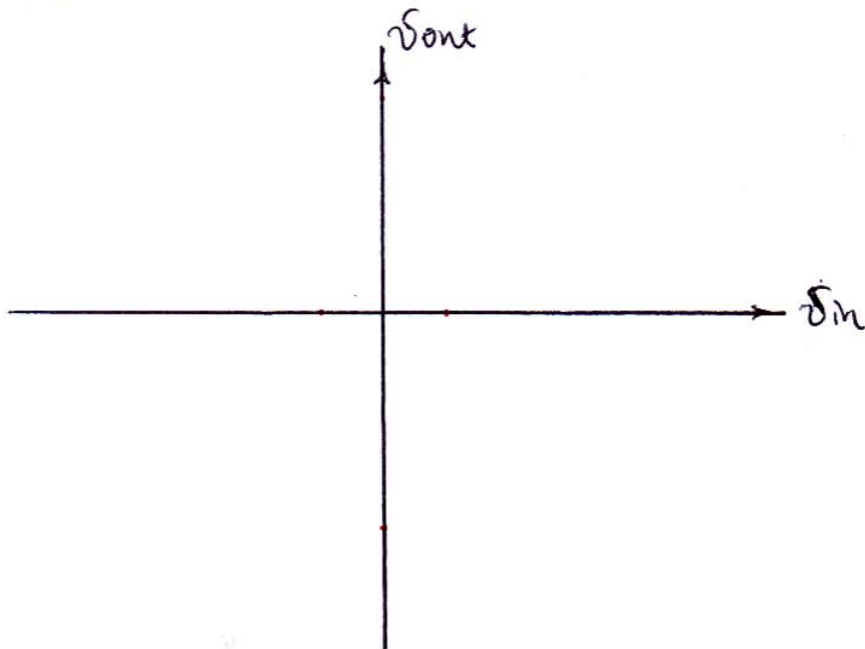


- this is an example of _____

- positive feedback _____ the current trend through whisking the threshold

Transfer characteristic

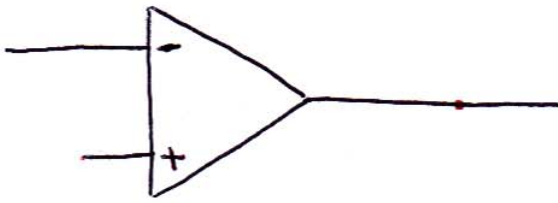
②



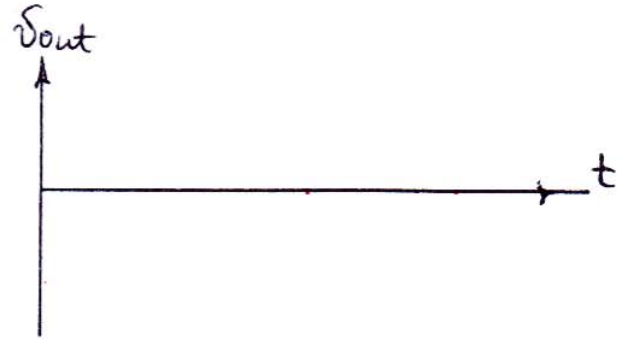
- threshold now depends _____

Astable multivibrator

③



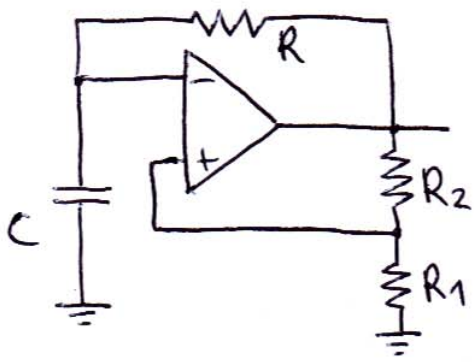
- op-amp supplies



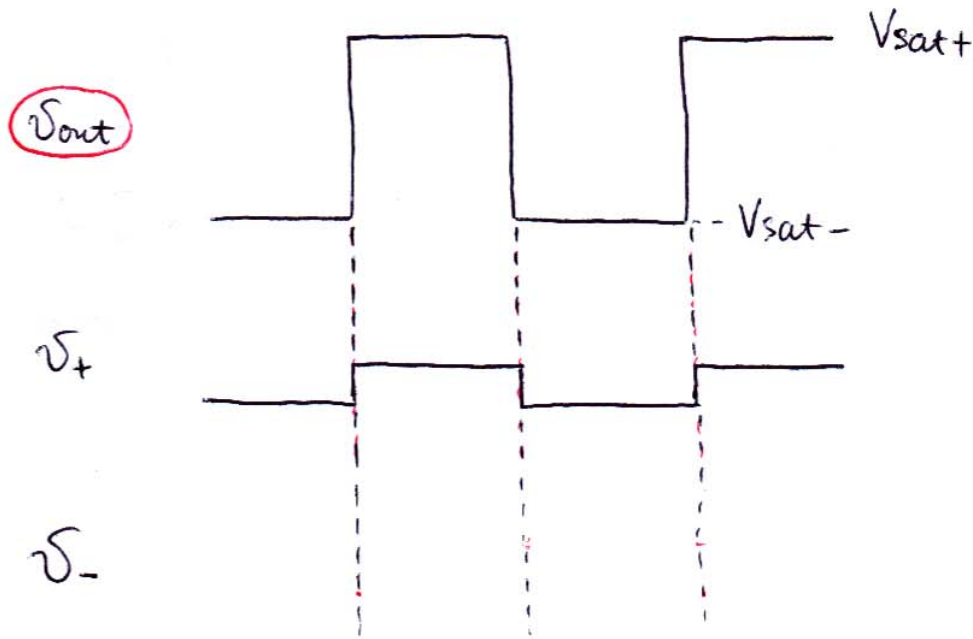
Strategy for solving unknown circuits :

Starting oscillations :

- assume ideal op-amp
- there is always noise, so $v_+ = v_-$ is never true for long



Analyze oscillator
voltage vs time



For simplicity $V_{sat+} = |V_{sat-}| = V_{sat}$

$$v_c(\Delta t) = V_F + (V_I - V_F) e^{-\frac{\Delta t}{RC}} \quad (*)$$

$$V_I = \quad , \quad V_F =$$

$$v_c(\Delta t) =$$