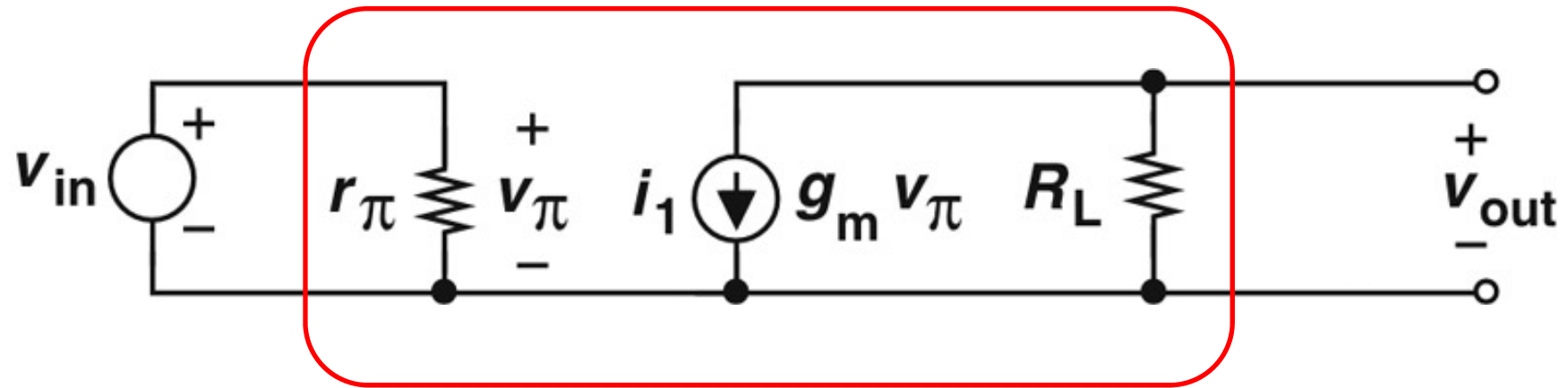


## Lect. 2: Review of Basic Circuits (1) (Razavi 1.3.4)

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Consider an amplifier (linear model)

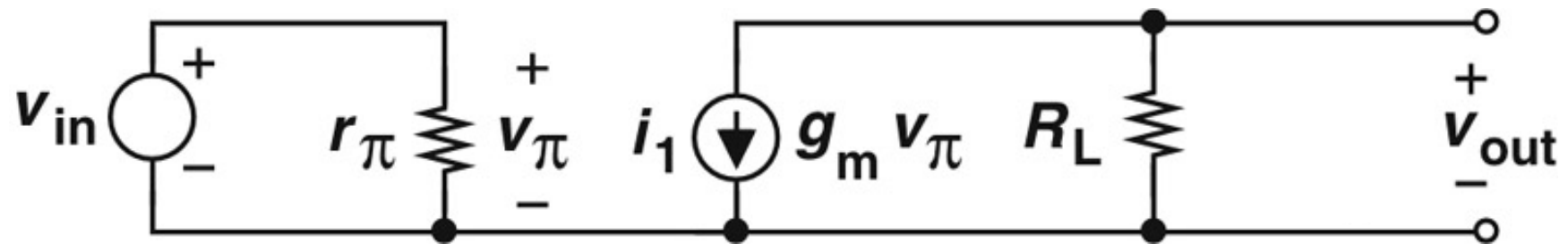


- Voltage gain:

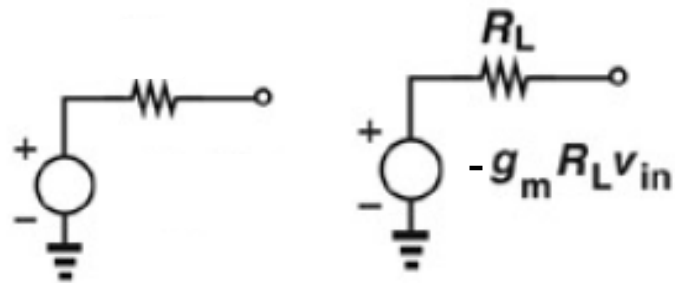
# Lect. 2: Review of Basic Circuits (1)

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Consider an amplifier (linear model)



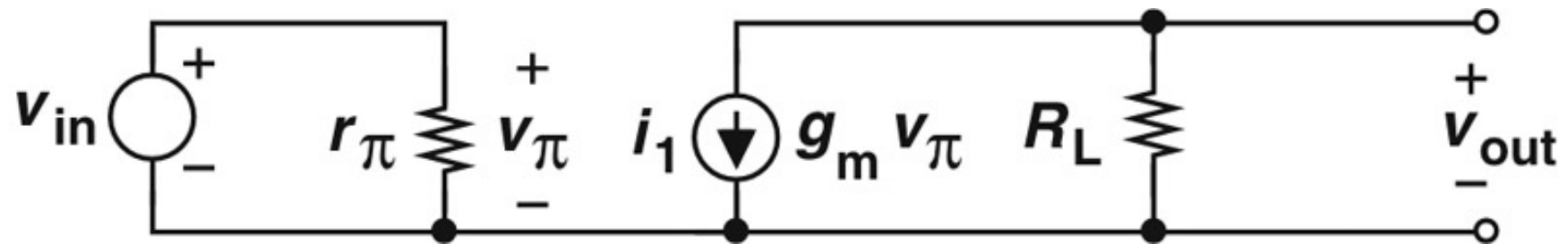
- Thevenin equivalent circuit:



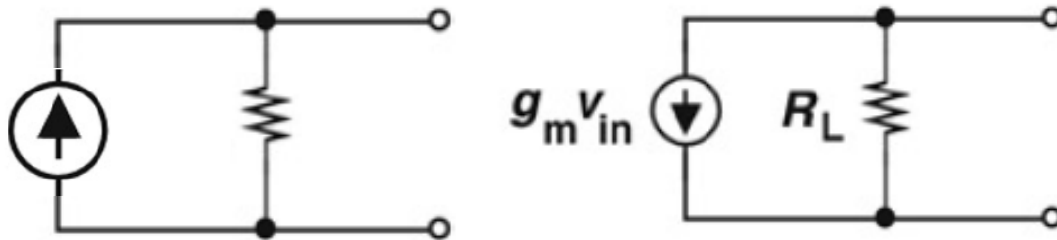
# Lect. 2: Review of Basic Circuits (1)

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Consider an amplifier (linear model)



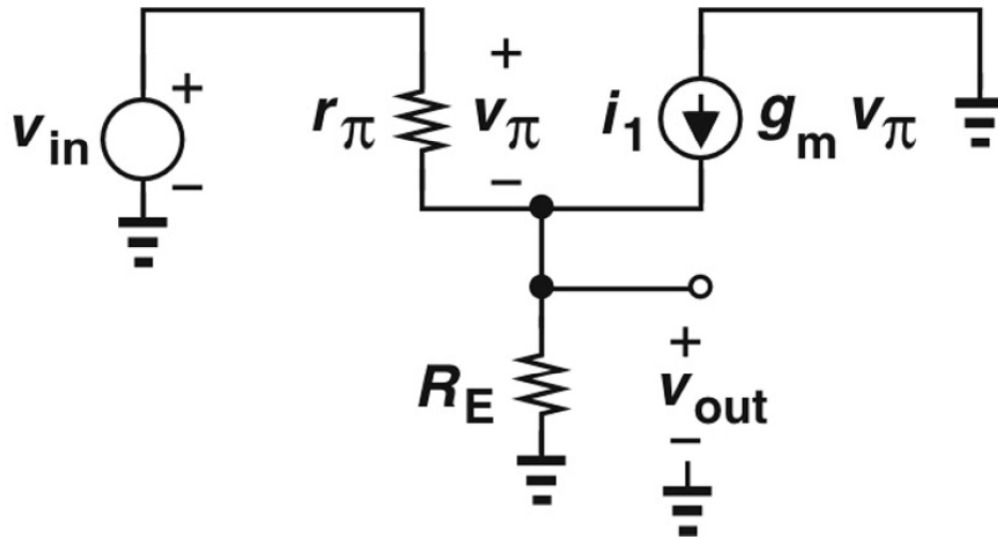
- Norton equivalent circuit:



## Lect. 2: Review of Basic Circuits (1)

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Consider another type of an amplifier (linear model)

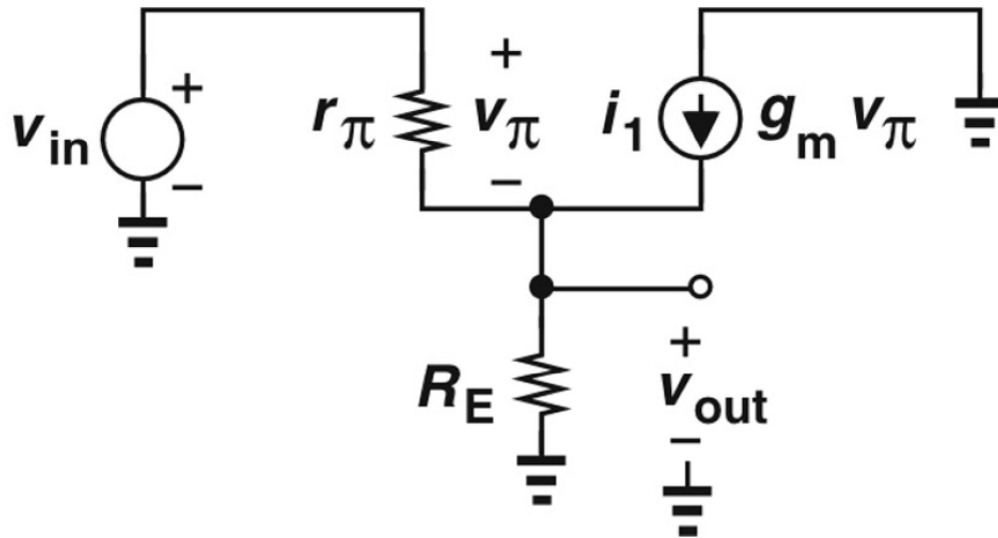


- Voltage gain:

## Lect. 2: Review of Basic Circuits (1)

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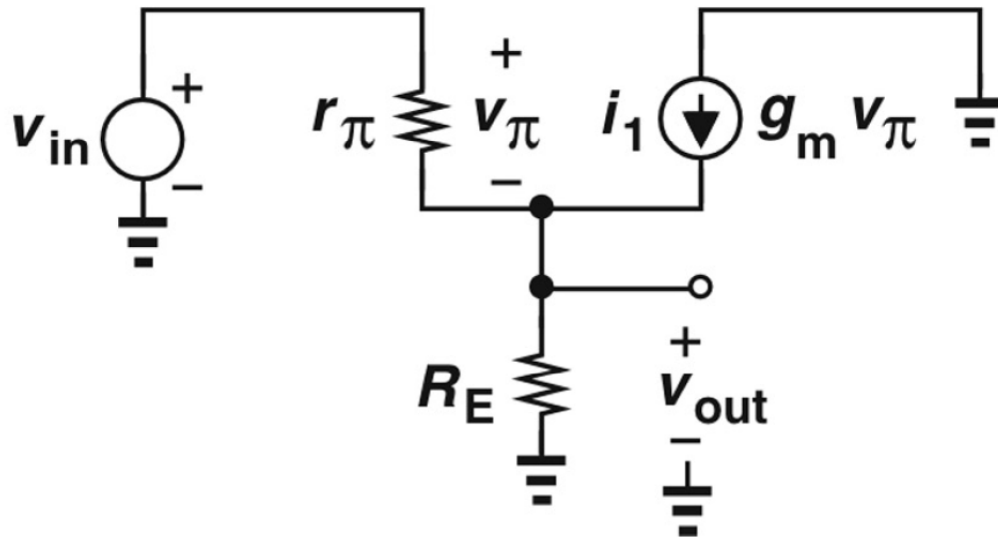
Consider another type of an amplifier (linear model)



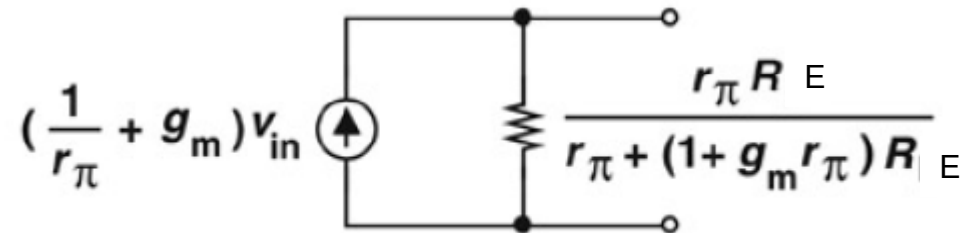
- Thevenin equivalent circuit:

# Lect. 2: Review of Basic Circuits (1)

Consider another type of an amplifier (linear model)



- Norton equivalent circuit:



# Lect. 2: Review of Basic Circuits (1)

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Homework: Due on 9/7 before tutorial

- Determine  $v_{out}/v_{in}$ , Thevenin, and Norton equivalent circuits for the following amplifier

