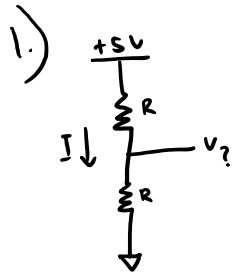


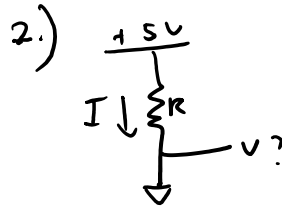
# Practice Problems 2

Thursday, September 22, 2016 5:15 PM



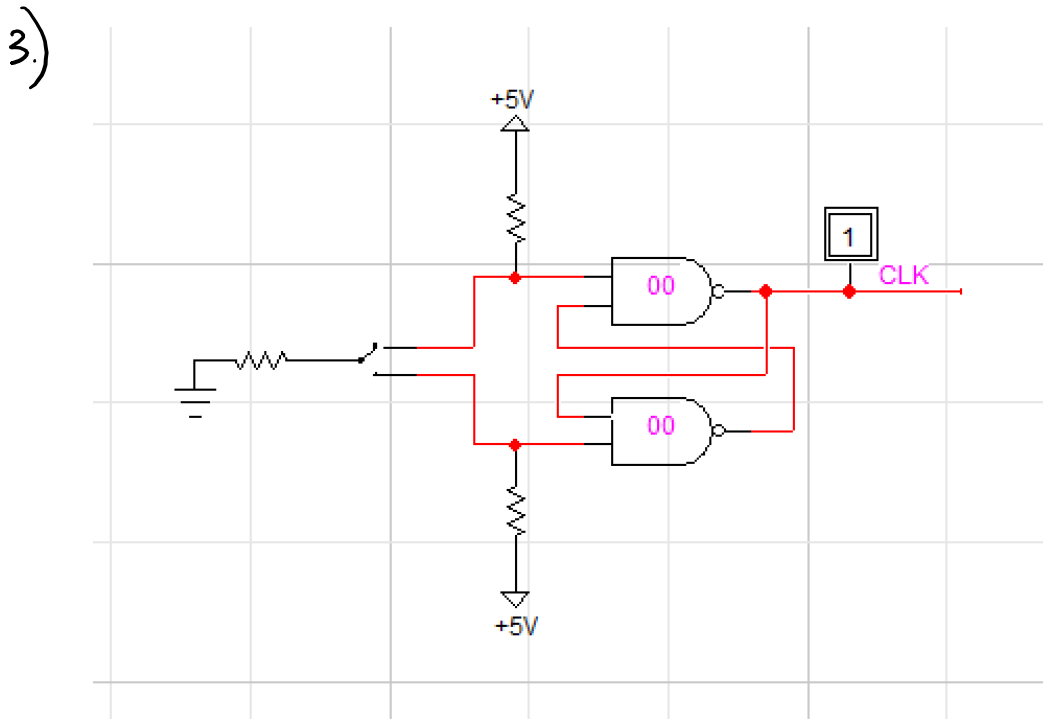
$$R_1 = 1k\Omega$$

WHAT IS  $V$ ?  
WHAT IS  $I$ ?



$$R = 1k\Omega$$

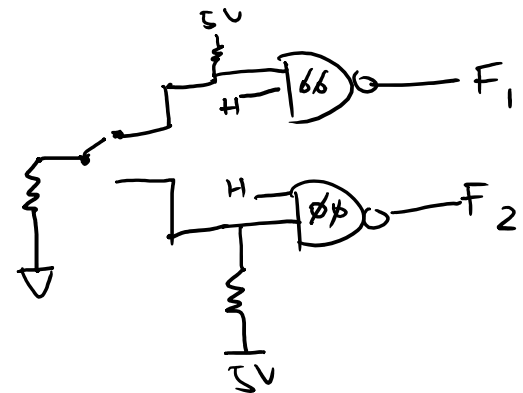
WHAT IS  $V$ ?  
WHAT IS  $I$ ?



WHAT DOES THIS CIRCUIT DO?  
CORRECT IF NECESSARY.  
YOU ONLY NEED TO UNDERSTAND  
VOLTAGE DIVIDERS.

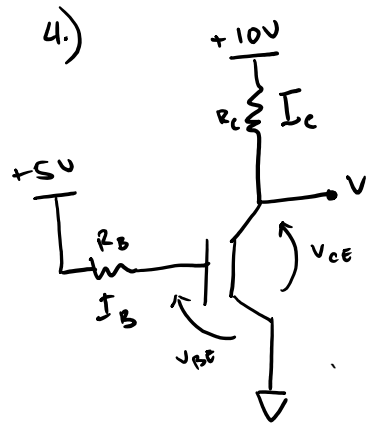
DON'T WORRY ABOUT THE  $\phi$ 'S  
BEING TIED TOGETHER.

IF IT'S TOO COMPLICATED, TOO  
THIS ONE INSTEAD:



# Practice Problems 2

Monday, September 26, 2016 6:40 PM



$$I_C = 30 \text{ mA}$$

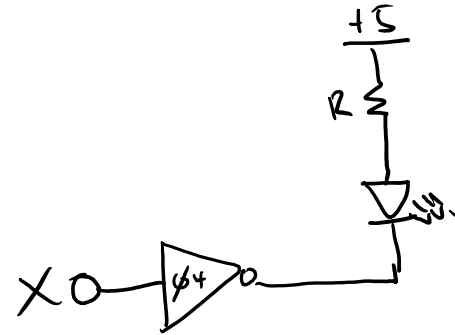
$$V_{CEQ} = 5 \text{ V}$$

$$V_{CE_{max}} = 10 \text{ V}$$

$$V = 5 \text{ V}$$

$$\beta = 100$$

5.) WHAT DOES THIS DO?  
CORRECT IF NECESSARY

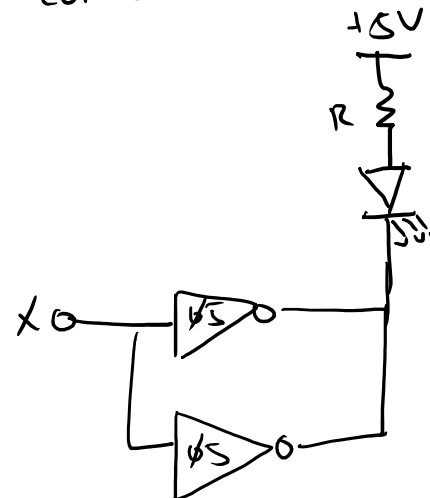


$$V_{LED} = 1.6 \text{ V}$$

$$I_{LED} = 20 \text{ mA}$$

WHAT IS R?

6.) WHAT DOES THIS DO?  
CORRECT IF NECESSARY



$$V_{LED} = 1.6 \text{ V}$$

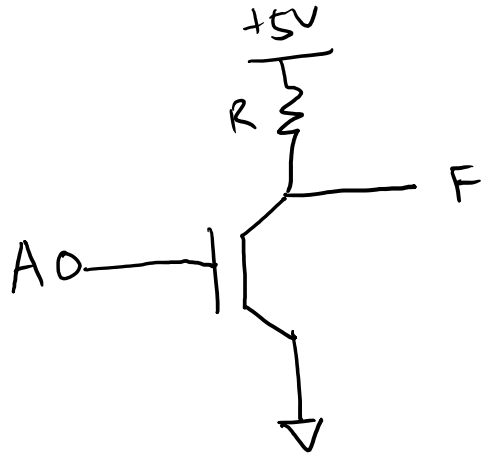
$$I_{LED} = 20 \text{ mA}$$

WHAT IS R?

## Practice Problems 2

Monday, September 26, 2016 7:01 PM

7.)



YOU HAVE AN INPUT A  
AND AN OUTPUT F.  
WHAT DOES THIS DO?

8.) TAKE A LOOK AT THE SCHEMATIC FOR  $\phi 4$ .  
COMPARE IT WITH THE TOP SCHEMATIC.

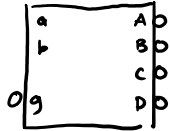
# Dr. Ozemek Problems 2

Tuesday, September 27, 2016 7:58 AM

DESIGN A BOX WITH:

2 INPUTS  
1 CONTROL

4 OUTPUTS  
ONLY ONE OUTPUT ACTIVE AT A GIVEN TIME



CONTROL WILL DISABLE THE DEVICE