

Example 1

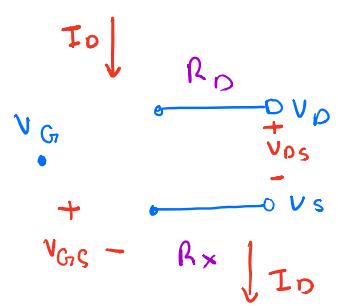
N-type device

$I_D \downarrow$

G D S

→ Triode region

Example 2



$\xrightarrow{\text{Assume}} \geq \rightarrow \text{Sat. operation.}$

From given.

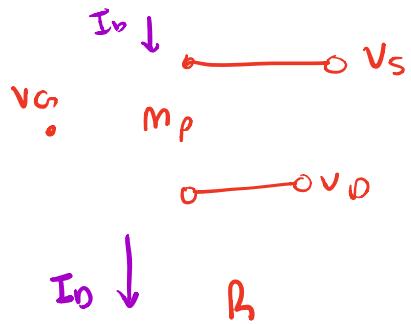
$[m^2]$        $[m^2]$

Device is in saturation.

Assumption  
Correct.

$\xrightarrow{\text{just ohms law.}}$

Example 3



\* check units!

Example 4

Given

$I_D \downarrow$

$V_{G1} = 0$        $m_1 \downarrow I_{D1}$   
                         $\curvearrowright V_{S1}$

$V_{G2} = 0$        $m_2 \downarrow I_{D2}$   
                         $\curvearrowright V_{S2}$

$m_1$  &  $m_2$  are diode connected  $\Rightarrow$  saturation.

$$I_D = I_{D1} = I_{D2} = .1mA$$

Example 5

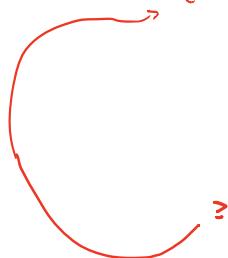
$$\downarrow I_0$$

$$\downarrow I_{D_s}$$

$$I_{D_2}$$

$$I_{D_2} = \underline{v_2 - (-1)}$$

(assume saturation)



?

assume  $m_2$  is  
in saturation as well.





} Both devices are off...  
does not make sense.

Confirmed sat. For both.

