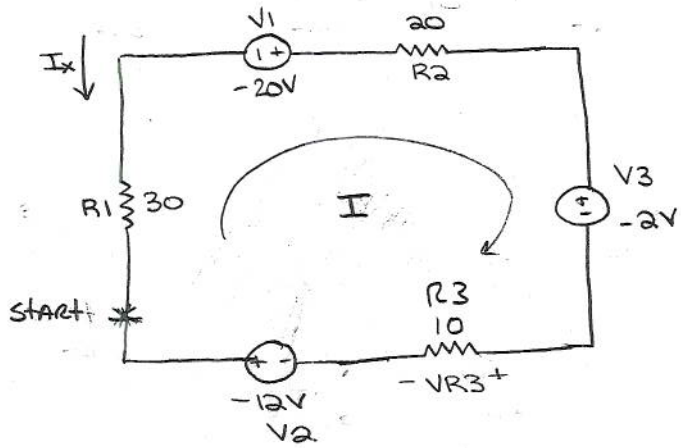
KVL

11. For the circuit below, find the following:
   1. VR3
   2. I_x
   3. Power dissipated by V2



Conceptually easier to think of I going clockwise

Choosing I clockwise to directly compute VR3
<u>note</u>: I will be (-1) * Ix

$$30I - (-20) + 20I - 2 + 10I - (-12) = 0$$

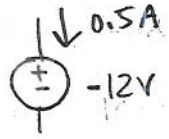
$$30I + 20 + 20I - 2 + 10I + 12 = 0$$

$$60I = -30$$

$I = -0.5$, thus <u>VR3 = -5 volts</u>
& <u>I_x = 0.5A</u>

$P_{V2} = IV$

@V2:



$P_{V2(DISS)} = -6W$ (diss)