EXAMPLE PROBLEM OF KVL

\[ V = IR \]

You need to use the above to find the voltage across each resistor.

\[ V_{AB} + V_{BC} + V_{CD} + V_{DE} + V_{EF} + V_{FG} + V_{GA} = 0 \]

\[ +5 + 10I + 15 + 10 + 15I + 5I - 30 = 0 \]

\[ +30 + 30I - 30 = 0 \]

\[ 30I = 30 - 30 = 0 \]

\[ I = 0 \]

Very Important:
Note first voltage starts with "A" and
the last voltage ends with "A".
Says you went completely around the loop.

Since \( I = 0 \), there is no voltage across any resistors.

\( V_{BC}, V_{EF} \) and \( V_{FE} \) are all zero.
\( V_{BC}, V_{FE} \) are just battery voltages.

In this problem and the last homework problem, the battery voltage add up to zero going around the loop. No resultant battery voltage in the circuit means no current will flow.