

Concept Question 2-6: Explain why KVL is a statement of conservation of energy. What sign convention is used with KVL?

KVL states that *the algebraic sum of the voltages around a closed loop must always be zero*, which is based on the law of conservation of energy.

Sign Convention

- Add up the voltages in a systematic clockwise movement around the loop.
- Assign a positive sign to the voltage across an element if the (+) side of that voltage is encountered first, and assign a negative sign if the (–) side is encountered first.