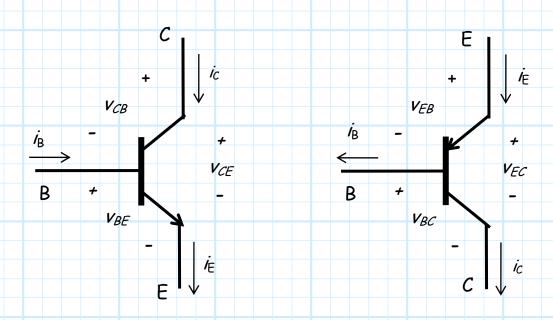
## Hints for BJT Circuit Analysis

1. Know the BJT symbols and current/voltage definitions!



- 2. Know what quantities must be determined for each assumption (e.g., for active mode, you must determine one BJT current and one BJT voltage).
- 3. Write separate equations for the BJT (device) and the remainder of the circuit (KVL, KCL, Ohm's Law).
- 4. Write the KVL equation for the circuit's "Base-Emitter Leg". In other words, write a KVL that includes  $v_{BE}$ .

- 5. Forget about what the problem is asking for! Just start by determining any and all the circuit quantities that you can. If you end up solving the entire circuit, the answer will in there somewhere!
- 6. If you get stuck, try working the problem **backward**! For example, to find a resistor value, you must find the voltage across it and the current through it.
- 7. Make sure you are using all the information provided in the problem!

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