Hello, here we have the inductor in place of the resistor, we have a sine wave as an AC source, got an oscilloscope. So, we press run and check out the wave, pause and bring in the wave to view. Here we have in the red, the voltage then in the green we have the current. Then we can bring in the tabs, to show the time where the peak occurs for each of the waves. For one sine wave it takes 360 degrees so from the peak down to where it crosses to axis would be ninety degrees, so we can see from this peak to where the red one crosses at ninety degrees, the green is peaking there, so that means it is out of phase by 90 degrees.

So, the voltage is leading the current. The word CIVIL help with this, “L” is for inductance, “C” is for capacitance. “L” is at the end, the “V” is before the “I” therefore for the inductor the voltage leads the current and for the Capacitor, current leads the voltage.

Hope this helps. Thank you for listening.