## How Can We Check...element currents and voltages?

1. The reference directions of the element currents and voltages are labeled on this circuit drawing. The subscripts suggest a numbering of the 8 elements of this circuit. The values of the voltage and current of each circuit element are tabulated to the right of the circuit drawing. Use Kirchhoff's laws to check to see if the tabulated values are correct.


|  | $v, \mathrm{~V}$ | $i, \mathrm{~A}$ |
| :---: | :---: | :---: |
| 1 | -1.895 | 0.2368 |
| 2 | 6.0 | 0.1053 |
| 3 | 10.11 | 0.8421 |
| 4 | 6.00 | 1.00 |
| 5 | 12.0 | -0.3421 |
| 6 | 4.842 | -0.6053 |
| 7 | 14.95 | 1.5 |
| 8 | -8.947 | 0.8947 |

2. The reference directions of the element currents and voltages are labeled on this circuit drawing. The subscripts suggest a numbering of the 7 elements of this circuit. The values of the voltage and current of each circuit element are tabulated to the right of the circuit drawing. Use Kirchhoff's laws to check to see if the tabulated values are correct.


|  | $v, \mathrm{~V}$ | $i, \mathrm{~A}$ |
| :---: | :---: | :---: |
| 1 | 1.188 | -0.1485 |
| 2 | 12.0 | 0.1485 |
| 3 | 14.79 | 1.233 |
| 4 | -1.604 | 0.2673 |
| 5 | 12.0 | -1.381 |
| 6 | 2.792 | 1.5 |
| 7 | -1.188 | 0.1188 |

