|  |  |
| --- | --- |
| **Title** | 12th homework in the Electric Circuit Theory class by 201923250 |

|  |  |  |  |
| --- | --- | --- | --- |
| **Author** | 201923250 | **Date** | 11.22.2020 |

**Summarization for sections from 11.6 to 11.8**

Over the years a major effort has been put into explaining as clearly as practicable power ties. The term complex control has been coined by power engineers to discover the full influence of parallel loads.

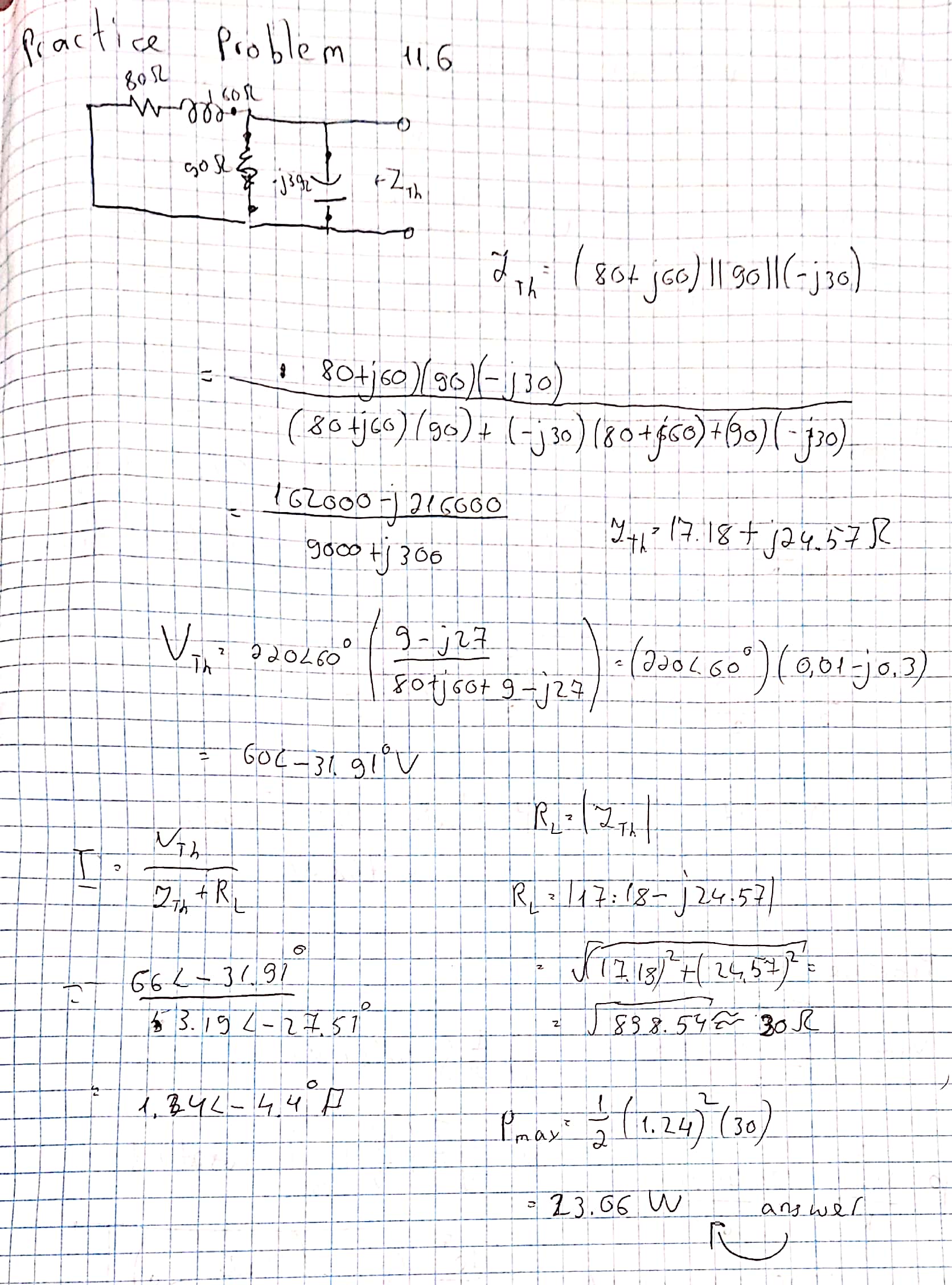
If we operate with the rms of the currents or voltages, we will drop the rms if there is no uncertainty. Complex energy (in VA) is the product of the rms voltage phasor and the rms current phasor complex mixture.

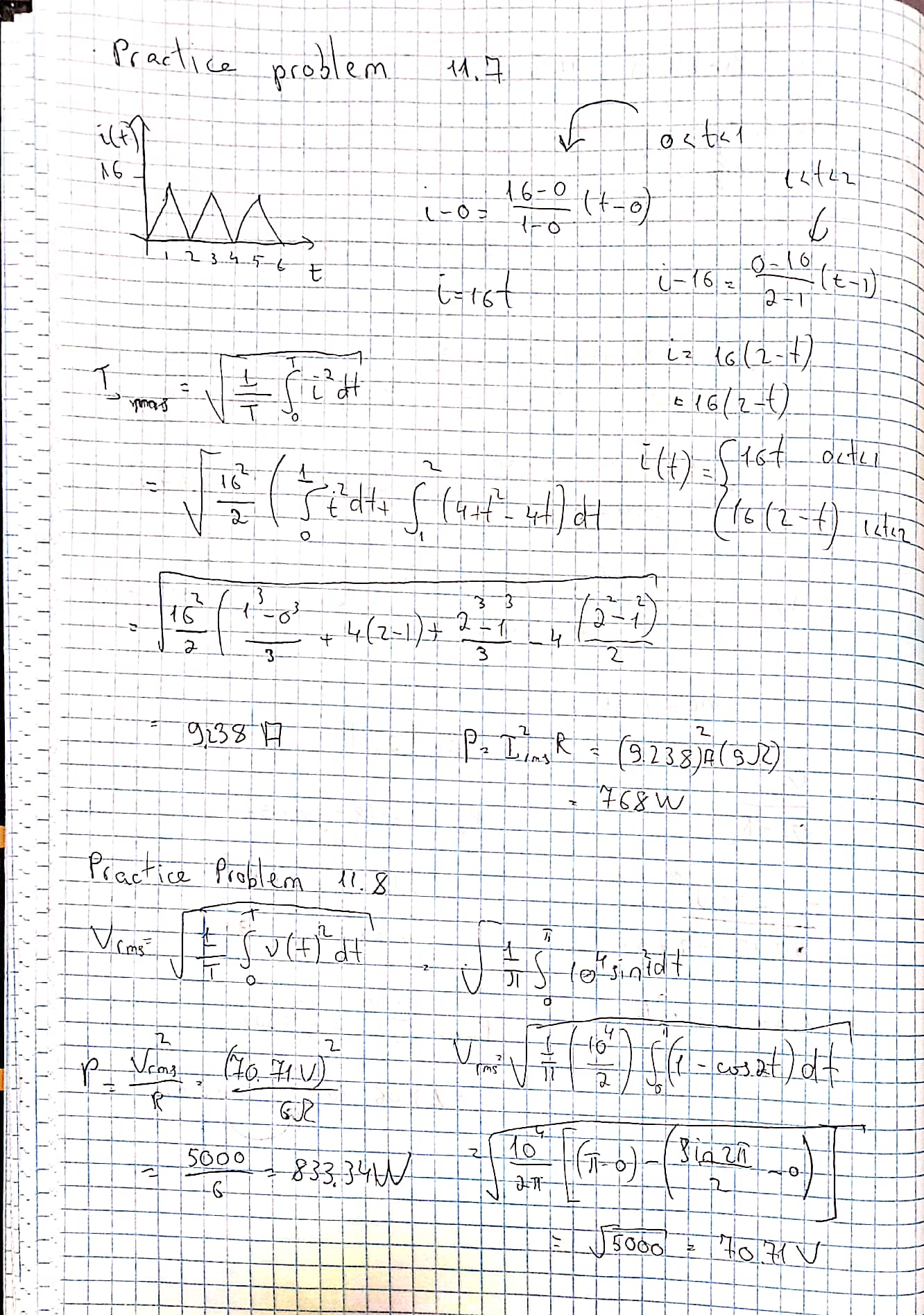
As a complex number, its true part is P and its imaginary part is Q. The complex, true and reactive power of the sources refers to the quantities of each load, its complex, actual and reactive forces.

In the power analysis, complex power is important since it includes all the details on the power of a certain load absorbed.

The method of raising the power factor without altering the voltage or current to the initial load is called a correction of the power factor. In order to bring the power factor closer to unity, the correction of power can be seen as the addition of a reactive part (usually a condenser) in parallel with the load.

**Solutions to practice problems**

****

****