

task_pdkggtyexxy1ktu3_with_calculation

Student Group

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complex impedance, exam ee1 WS2022

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Result: A series circuit means that the current is constant on every component.
The equivalent impedance for R and L combined is given by...
Parallel circuit means that the voltage is the same on R1 and C2...
Therefore, the resulting current of the parallel circuit is given as:
This can be simplified to...
Back to the first formula: R3 * I3 = X3C * I3C

Solution
\begin{align*} R_1 &= 1.00 \sim \Omega \\ R_2 &= 10.0 \sim \Omega \end{align*}
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