

Assignment1

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Problem 3.20a

Consider a causal LTI system implemented as the RLC circuit shown in fig. 1. In this circuit, $x(t)$ is the input voltage. The voltage $y(t)$ across the capacitor is considered the system output.

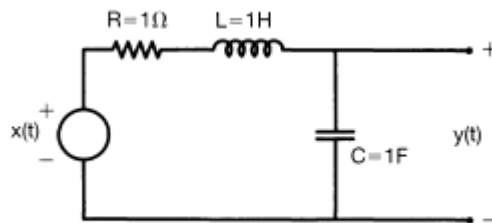


Figure 1: 3.20

Find the differential equation relating $x(t)$ and $y(t)$.

Solution:

hvsdasd