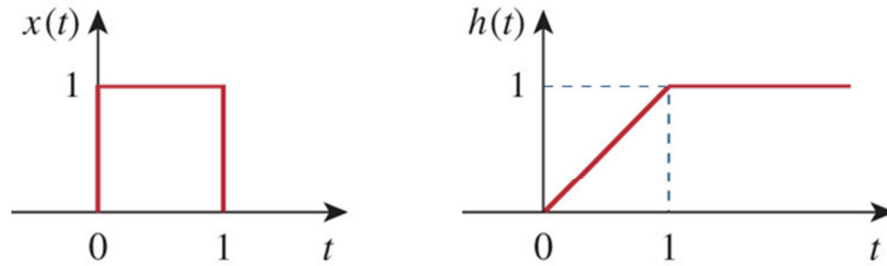


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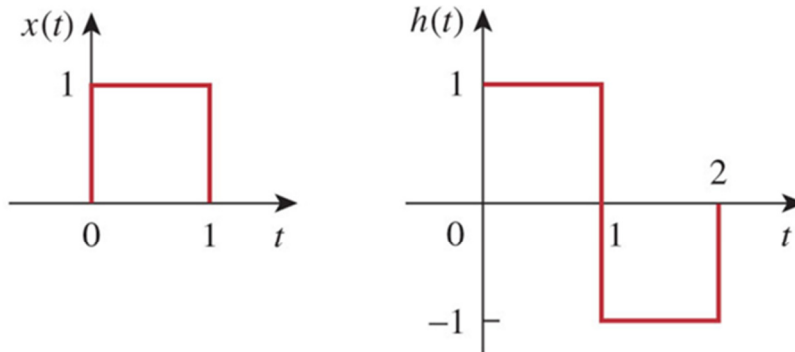
1. (Prob. 15.43a in text) Find $y(t) = x(t) * h(t)$ (convolution of $x(t)$ and $h(t)$) for $x(t)$ and $h(t)$ in the figure below:
- Solve using the graphical method (evaluate the integral to find the area under the curve).
 - Solve by multiplying in the s-domain (use the Laplace Transform & Inverse Laplace transform):



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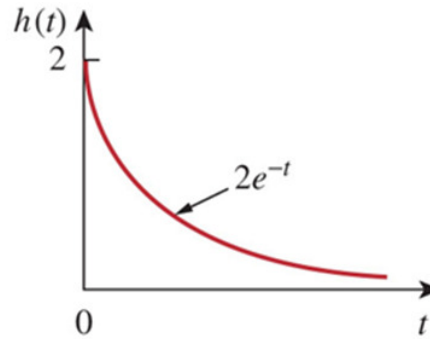
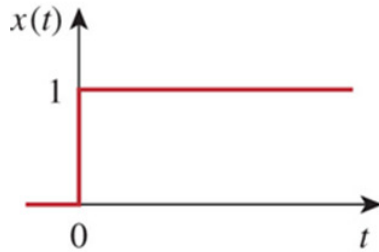
2. (Prob. 15.44a from Text) Find $y(t) = x(t) * h(t)$ (convolution of $x(t)$ and $h(t)$) for $x(t)$ and $h(t)$ in the figure below:
- Solve using the graphical method (evaluate the integral to find the area under the curve).
 - Solve by multiplying in the s-domain (use the Laplace Transform & Inverse Laplace transform):



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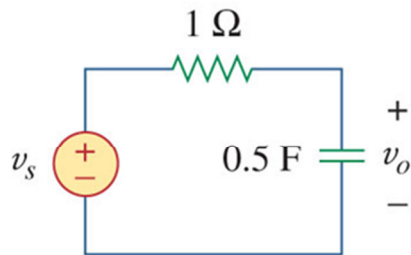
3. (Prob. 15.43b from Text) Find $y(t) = x(t) * h(t)$ for the paired $x(t)$ and $h(t)$ below using two methods:
- Solve using the graphical method (evaluate the integral to find the area under the curve).
 - Solve by multiplying in the s-domain (use the Laplace Transform & Inverse Laplace transform):



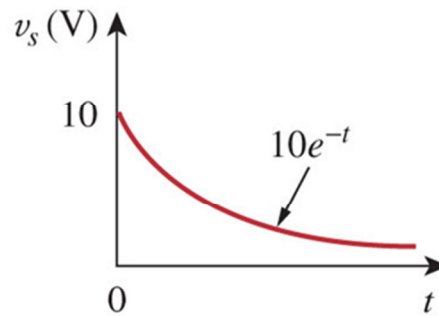
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4. (Practice problem 15.14 from Text) Use convolution to find $v_o(t)$ in the circuit below in figure (a) when the excitation is the signal shown in figure (b). Verify your answer by performing the equivalent operation in the s-domain.



(a)

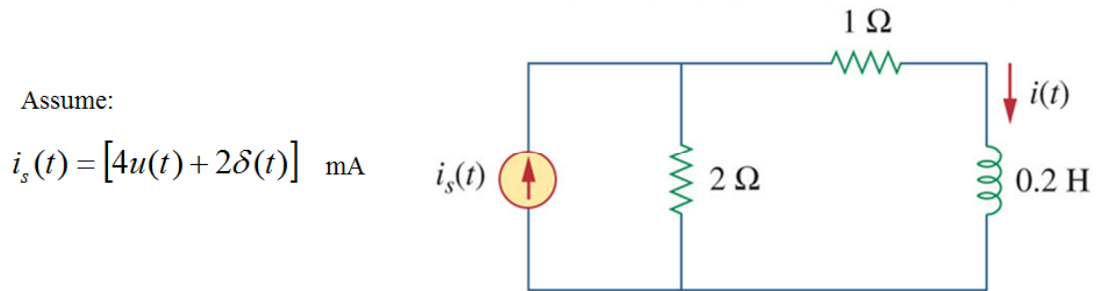


(b)

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5. (Prob. 16.14 from Text) Find $i(t)$ for $t > 0$ for the circuit shown below:



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6. (Prob. 16.16 from Text) The capacitor in the circuit below is initially uncharged. Find $v_o(t)$ for $t > 0$:

