

Yüksek Mat II Ödev No 9

Adı Soyadı:										
Öğrenci No:			0	5	0		0			
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		5			5		5	5		
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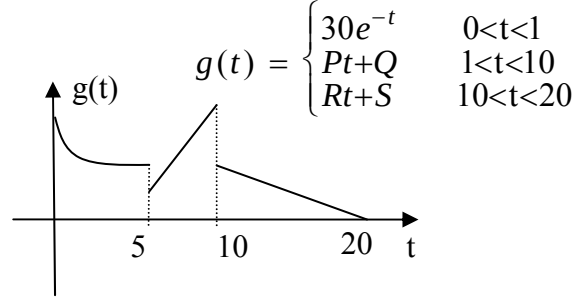
1) Laplas donusumunun tanimini kullanarak $g(t)=e^{At}$, nin Laplas donusumunu hesaplayin. Integralin cozumunu adım adım yamaniz isteniyor.

2) $g(t)$ isaretinin Laplas donusumu $G(s) = \frac{\sqrt{s^2 + 1}}{s + 3}$ dir.

a) $h(t)=g(t) e^{-Bt}$, b) $f(t) = \frac{dg}{dt}$, c) $p(t) = \frac{dh}{dt}$

isaretlerinin Laplas donusumlerini bulun. $g(0)=20$ olarak veriliyor.

3) Sekildeki $g(t)$ isaretinin Laplas donusumunu almak icin gerekli **integrali yazin**. $g(t)$ isareti $t>20$ icin sifirdir.



4) Tablodaki $g(t)$ isaretlerinin nin Laplas donusumlerini bulun.

1)																					
2)	H(s)= F(s)=																				
3)																					
4)	<table border="1"> <thead> <tr> <th>$g(t)$</th><th>$G(s)$</th></tr> </thead> <tbody> <tr> <td>$\delta(t)$</td><td></td></tr> <tr> <td>$\cos(bt)$</td><td></td></tr> <tr> <td>$t \cos(bt)$</td><td></td></tr> <tr> <td>$t^2 u(t)$</td><td></td></tr> </tbody> </table> <table border="1"> <thead> <tr> <th>$g(t)$</th><th>$G(s)$</th></tr> </thead> <tbody> <tr> <td>$\delta(t) \cos(bt)$</td><td></td></tr> <tr> <td>$t e^{at}$</td><td></td></tr> <tr> <td>$e^{at} \sin(bt)$</td><td></td></tr> <tr> <td>$e^{at} \cos(bt)$</td><td></td></tr> </tbody> </table>	$g(t)$	$G(s)$	$\delta(t)$		$\cos(bt)$		$t \cos(bt)$		$t^2 u(t)$		$g(t)$	$G(s)$	$\delta(t) \cos(bt)$		$t e^{at}$		$e^{at} \sin(bt)$		$e^{at} \cos(bt)$	
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