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μ 2008  
12/05/2008

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a)  $y_1(t) = 2 \sin(2\pi t)[2 + \cos(4\pi t)]$

b)  $y_2(t) = t^2 + \cos(3t)$

c)  $y_3(t) = \begin{cases} 3t & 0 \leq t \leq 2 \\ 6 & 2 \leq t \leq 4 \\ 3(-t+6) & 4 \leq t \leq 6 \\ 0 & \text{διαφορετικ} \end{cases}$

d)  $y_4(t) = t \cdot \sin t$

e)  $y_5(t) = t^2 \cdot \cos t$

f)  $y_6(t) = te^t$

g)  $y_7(t) = t + \sin t$

h)  $y_8(t) = \frac{\sin t}{1 + \cos t}$

i)  $y_9(t) = \log\left(\frac{1+t}{1-t}\right)$

j)  $y_{10}(t) = \sin(2t) + \cos\left(\frac{t}{2}\right) + \tan t$

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a)  $y_1(t) = \left| \sin\left(-\frac{5\pi t}{8} + \frac{\pi}{2}\right) \right|$

b)  $y_2(t) = \sin\left(\frac{6\pi t}{7}\right) + 2 \cos\left(\frac{3t}{5}\right)$

c)  $y_3(t) = \exp\left(j \frac{3\pi t}{8}\right) + \exp\left(\frac{\pi t}{86}\right)$

d)  $y_4(t) = \frac{\sin t}{1 + \cos t}$

e)  $y_5(t) = \sin^4 t + \cos^4 t$

f)  $y_6(t) = t + \sin t$

g)  $y_7(t) = |\sin t| + |\cos t|$

μ 4

μ Fourier μ  $g(t)$

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a) μ , μ μ

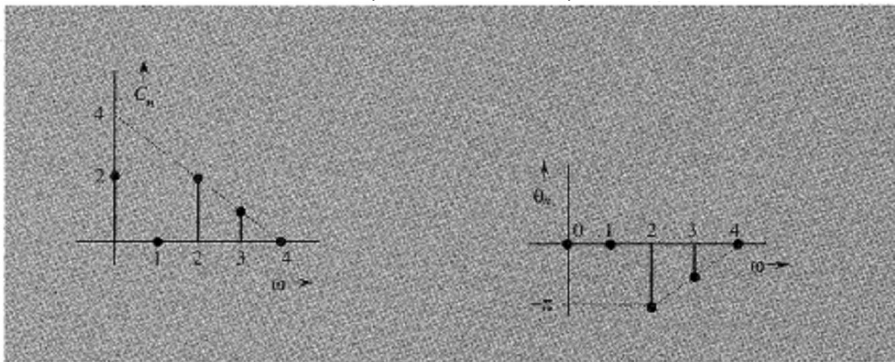
μ Fourier μ  $g(t)$

b) μ μ ;

c) μ μ Fourier

μ μ Fourier

d) μ μ (a) (c) μ .



μ 4

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60°.



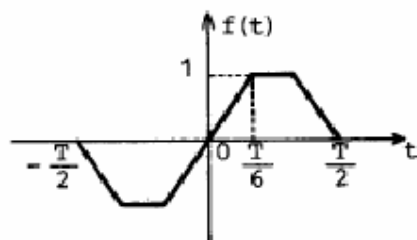
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$$V = 200 + 100 \cos(100t + \frac{\pi}{6}) + 75 \cos(300t + \frac{\pi}{3})$$

$$I = 5 \cos(100t + \frac{\pi}{6}) + 5 \cos(300t + 0.417\pi)$$

μ 5

- a) μ μ .  
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- b) . μ μ μ Fourier
- c) μ μ . μ μ



μ 6

- Fourier μ μ , μ μ
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