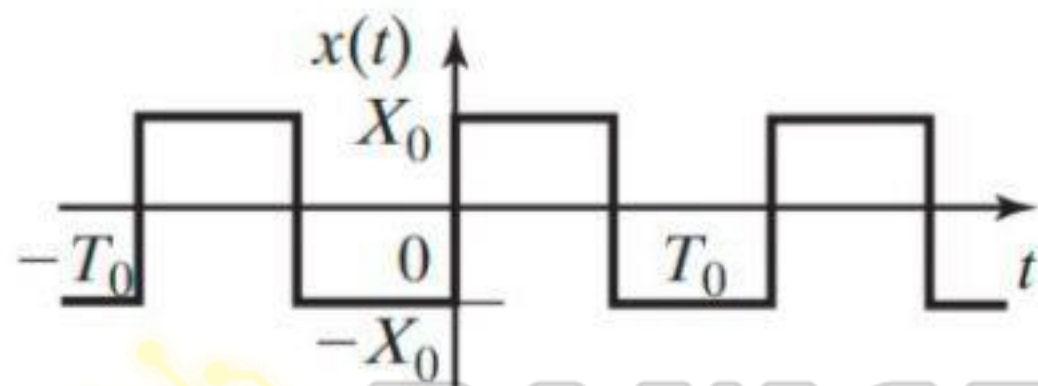


Use the Time Differentiation Property to find the Fourier Series of the signal  $x(t)$  given below. Then, find the Fourier Series of  $y(t) = x(-t) + x(T_0 - t)$



Answer:

↶	↷	Paragraph	▼				$\sqrt{x}$	(i)	<b>B</b>	<i>I</i>	$x_2$	$x^2$	$\Omega$		<u>A</u>	▼		▼	...
P															0 WORDS. POWERED BY TINY				

SUBMIT ANSWER

Question 2/4 (10 p.)

Find the Fourier Transform of the signal  $f(t) = \frac{\cos(\mu t)}{\frac{\alpha}{t} + \beta}$ , where  $\alpha$ ,  $\beta$ , and  $\mu$  are positive real constants.

Please, show all work and refer to the Fourier Transform properties used in the solution.

Answer:

POWERUNIT

←	→	Paragraph	↓				$\sqrt{x}$	{;}	<b>B</b>	<i>I</i>	$x_2$	$x^2$	$\Omega$		<u>A</u>	↓		↓	...
<p>P</p> <p>0 WORDS POWERED BY TINY</p>																			

SUBMIT ANSWER

Find the Fourier Transform of the signal  $f(t) = \frac{\sin(\mu t)}{\frac{\alpha}{t} + \beta}$ , where  $\alpha$ ,  $\beta$ , and  $\mu$  are positive real constants.

Please, show all work and refer to the Fourier Transform properties used in the solution.

Answer:

POWERUNIT

← Paragraph →

🖼️ 📺 🔗 √x (i) B I X<sub>2</sub> X<sup>2</sup> Ω 😊 A 🖋️ ⋮

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







0 WORDS POWERED BY TINY

Find the Fourier Transform of the signal  $f(t) = U(\cos(\pi t) - \sin(\pi t))$ , where  $U(\cdot)$  is the unit step function. Sketch the Fourier Spectrum.

Please, show all work.

Answer:

POWERUNIT

← → Paragraph     $\sqrt{x}$   $\{; \}$  **B** *I*  $x_2$   $x^2$   $\Omega$   A      

0 WORDS POWERED BY TINY

Compute and roughly sketch  $y(t) = x(t) * h(t)$ , where  $x(t) = e^{-t}[U(t) - U(t-1)]$  and  $h(t) = 2U(t) - U(t+1) - U(t-1)$ .

Please, show all steps.

Answer:

POWERUNIT



Paragraph

