

**Kezdés ideje** 2019. November 25., Monday, 19:04**Állapot** Befejezte**Befejezés dátuma** 2019. November 26., Tuesday, 08:01**Felhasznált idő** 12 óra 56 perc**Pontok** 19,51/25,00**Pont** 7,81 a maximum 10,00 közül (78%)**Információ**

A feladatok megoldása során a képzetes egység jelölésére a "j" karaktert használja!

$$\sqrt{(-1)} = j$$

A képzetes egység jelölésére az "i" karaktert nem fogadjuk el!

A feladatok megoldása során a számolt értékeket 4 tizedesjegy hosszan adja meg!

Azon feladatrészekben, ahol szöveget kell megadni válaszul, a szög értékét radiánban adja meg  $[-\pi, +\pi]$  értéktartomány között!

**1 kérdés**

Helyes

2,00 közül 2,00

leosztályozva

Adott egy folytonos idejű rendszer az alábbi állapotváltozós leírással:

$$\underline{x}'(t) = \begin{bmatrix} 22.4918 & -29.0579 \\ 25.7377 & -22.2918 \end{bmatrix} \underline{x}(t) + \begin{bmatrix} -15.5 \\ -16.4 \end{bmatrix} u(t)$$

$$y(t) = [14.4 \quad -1.8] \underline{x}(t) + (16.2)u(t)$$

Számítsa ki és adja meg a  $b_0$ ,  $b_1$ ,  $b_2$ ,  $a_0$ ,  $a_1$  és  $a_2$  paraméterek értékét a rendszer átviteli karakterisztikájának normál alakjában:

$$H(j\omega) = \frac{b_0(j\omega)^2 + b_1(j\omega) + b_2}{a_0(j\omega)^2 + a_1(j\omega) + a_2}$$

$$b_0 = 16.2, \quad b_1 = -196.92, \quad b_2 = 5794.4533$$

$$a_0 = 1, \quad a_1 = -0.2, \quad a_2 = 246.5008$$

Your last answer was interpreted as follows: 16.2

Your last answer was interpreted as follows: -196.92

Your last answer was interpreted as follows: 5794.4533

Your last answer was interpreted as follows: 1

Your last answer was interpreted as follows: -0.2

Your last answer was interpreted as follows: 246.5008

Helyes válasz. Helyes válasz. Helyes válasz. Helyes válasz. Helyes válasz. Helyes válasz.

Helyes válasz.

A correct answer is 16.2, which can be typed in as follows: 16.2

A correct answer is -196.92, which can be typed in as follows: -196.92

A correct answer is 5794.22084855, which can be typed in as follows: 5794.22084855

A correct answer is 1, which can be typed in as follows: 1

A correct answer is -0.2, which can be typed in as follows: -0.2

A correct answer is 246.500805589, which can be typed in as follows: 246.500805589

**2 kérdés**

Helyes

2,00 közül 2,00

leosztályozva

Adott egy diszkrét idejű rendszer az alábbi állapotváltozós leírással:

$$\underline{x}[k+1] = \begin{bmatrix} 0.7888 & 0.0742 \\ -0.0169 & 0.9112 \end{bmatrix} \underline{x}[k] + \begin{bmatrix} 3.7 \\ -15.9 \end{bmatrix} u[k]$$

$$y[k] = [-39.7 \quad -33.9] \underline{x}[k] + (-3.6)u[k]$$

Számítsa ki és adja meg a  $b_0$ ,  $b_1$ ,  $b_2$ ,  $a_1$ ,  $a_2$  paraméterek értékét a rendszer átviteli karakterisztikájának normál alakjában:

$$H(e^{j\theta}) = \frac{b_0 + b_1 e^{-j\theta} + b_2 e^{-2j\theta}}{1 + a_1 e^{-j\theta} + a_2 e^{-2j\theta}}$$

$$b_0 = -3.6$$

$$b_1 = 398.24$$

$$b_2 = -244.96$$

$$a_1 = -1.7$$

$$a_2 = 0.72$$

Your last answer was interpreted as follows:  $-3.6$

Your last answer was interpreted as follows:  $398.24$

Your last answer was interpreted as follows:  $-244.96$

Your last answer was interpreted as follows:  $-1.7$

Your last answer was interpreted as follows:  $0.72$

Helyes válasz.

A correct answer is  $-3.6$ , which can be typed in as follows:

A correct answer is  $398.24$ , which can be typed in as follows:

A correct answer is  $-242.372401327$ , which can be typed in as follows:

A correct answer is  $-1.7$ , which can be typed in as follows:

A correct answer is  $0.720008539999$ , which can be typed in as follows:

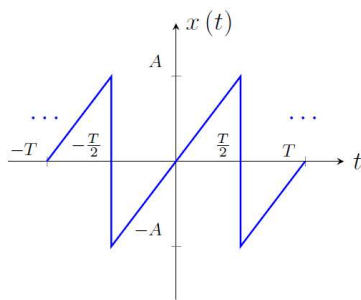
### 3 kérdés

Hibás

0,00 közül 2,00

leosztályozva

Adott az alábbi  $T$  periódus idejű periodikus fűrészfog jel:



Az ábrán feltüntetett paraméterek értékei:  $A = 7.2$ .

Számolja ki a jel Fourier-polinómjának első három nem nulla értékű együtthatóját!

$$X_1 = 2.9181$$

Your last answer was interpreted as follows: 2.9181

Helytelen válasz.

Az  $X_1$  értéke helytelen!

$$X_2 = 0.3242$$

Your last answer was interpreted as follows: 0.3242

Helytelen válasz.

Az  $X_2$  értéke helytelen!

$$X_3 = 0.1167$$

Your last answer was interpreted as follows: 0.1167

Helytelen válasz.

Az  $X_3$  értéke helytelen!

Helytelen válasz.

A correct answer is  $\frac{7.2}{\pi}$ , which can be typed in as follows: `7.2/%pi`

A correct answer is  $-\frac{3.6}{\pi}$ , which can be typed in as follows: `-3.6/%pi`

A correct answer is  $\frac{2.4}{\pi}$ , which can be typed in as follows: `2.4/%pi`

### 4 kérdés

Helyes

2,00 közül 2,00

leosztályozva

Egy diszkrét idejű periodikus jel egy periódusának értékei az alábbiak:

$$x[0] = -4.3, x[1] = 9.6, x[2] = 4.5, x[3] = -0.4, \\ x[4] = 1.3, x[5] = -3.8, x[6] = -4.3, x[7] = 7.2$$

Adja meg a jel komplex Fourier-sorának 6. harmónikusához tartozó komplex együtthatóját!

$$U_N^C = 0.4191 \cdot e^{(-2.8387 \cdot j)}$$

Your last answer was interpreted as follows:  $0.4191 \cdot e^{-2.8387 \cdot j}$

Helyes válasz.

A correct answer is  $-0.125 \cdot j - 0.4$ , which can be typed in as follows: `(-0.125*i)-0.4`

## 5 kérdés

Helyes

4,00 közül 4,00

leosztályozva

Egy folytonos idejű rendszer átviteli karakterisztikája a következő alakban adott:

$$H(j\omega) = \frac{2 \cdot j\omega + 5}{(j\omega)^2 + 9 \cdot j\omega + 5}$$

A rendszert az alábbi jel gerjeszti:

$$u(t) = 16 + 11\cos(2t) + 4\cos(4t)$$

1. Határozza meg az átviteli tényező értékeit a válasz kiszámításához szükséges körfrekvenciákon! ( $\omega_0 < \omega_1 < \omega_2$ )

$$H_0(j\omega_0) = 1$$

Your last answer was interpreted as follows: 1

Helyes válasz.

$$H_1(j\omega_1) = 0.3552 \cdot e^{(-0.8406 \cdot j)}$$

Your last answer was interpreted as follows:  $0.3552 \cdot e^{-0.8406 \cdot j}$

Helyes válasz.

$$H_2(j\omega_2) = 0.2506 \cdot e^{(-0.8551 \cdot j)}$$

Your last answer was interpreted as follows:  $0.2506 \cdot e^{-0.8551 \cdot j}$

Helyes válasz.

2. Határozza meg a rendszer válaszában időfüggvényét a megadott gerjesztésre, ha a választ az alábbi alakban keressük:

$$y(t) = Y_0 + Y_1 \cdot \cos(2t + \varphi_1) + Y_2 \cdot \cos(4t + \varphi_2)$$

$$Y_0 = 16, \quad Y_1 = 3.9072, \quad \varphi_1 = -0.8406, \quad Y_2 = 1.0024, \quad \varphi_2 = -0.8551$$

Your last answer was interpreted as follows: 16

Your last answer was interpreted as follows: 3.9072

Your last answer was interpreted as follows: -0.8406

Your last answer was interpreted as follows: 1.0024

Your last answer was interpreted as follows: -0.8551

Helyes válasz.

Helyes válasz.

A correct answer is 1, which can be typed in as follows: 1

A correct answer is  $\frac{4 \cdot j + 5}{18 \cdot j + 1}$ , which can be typed in as follows:  $(4 \cdot \%i + 5) / (18 \cdot \%i + 1)$

A correct answer is  $\frac{8 \cdot j + 5}{36 \cdot j - 11}$ , which can be typed in as follows:  $(8 \cdot \%i + 5) / (36 \cdot \%i - 11)$

A correct answer is 16, which can be typed in as follows: 16

A correct answer is  $\frac{11 \cdot \sqrt{41}}{5 \cdot \sqrt{13}}$ , which can be typed in as follows:  $(11 \cdot \text{sqrt}(41)) / (5 \cdot \text{sqrt}(13))$

A correct answer is  $\text{atan}\left(\frac{4}{5}\right) - \text{atan}(18)$ , which can be typed in as follows:  $\text{atan}(4/5) - \text{atan}(18)$

A correct answer is  $\frac{4 \cdot \sqrt{89}}{\sqrt{1417}}$ , which can be typed in as follows:  $(4 \cdot \text{sqrt}(89)) / \text{sqrt}(1417)$

A correct answer is  $\text{atan}\left(\frac{36}{11}\right) + \text{atan}\left(\frac{8}{5}\right) + \pi$ , which can be typed in as follows:  $\text{atan}(36/11) + \text{atan}(8/5) + \%pi$

## 6 kérdés

Részben helyes

3,87 közül 4,00

leosztályozva

Egy diszkrét idejű rendszer átviteli karakterisztikája az alábbi alakban adott:

$$H(e^{j\theta}) = \frac{11.54e^{j\theta} + (-18.48)}{e^{j2\theta} + (-0.5)e^{j\theta} + 0.8}$$

A rendszert a következő jel gerjeszti:

$$u[k] = -8.0 + (-4.6)\cos\left(\frac{2\pi}{7}k + (-0.11)\right) + (-2.5)\cos\left(\frac{4\pi}{7}k + (-2.34)\right) + (9.0)\cos\left(\frac{6\pi}{7}k + (-2.96)\right)$$

1. Adja meg a periodikus gerjesztés periódusszámát!

$$Z = 7$$

Your last answer was interpreted as follows: 7

Helyes válasz.

2. Határozza meg az átviteli tényező értékeit a válasz kiszámításához szükséges körfrekvenciákon! ( $\Theta_0 < \Theta_1 < \Theta_2 < \Theta_3$ )

$$H_0(e^{j\Theta_0}) = -5.3385$$

Your last answer was interpreted as follows: -5.3385

Helyes válasz.

$$H_1(e^{j\Theta_1}) = 22.5190 \cdot e^{(1.3233 \cdot j)}$$

Your last answer was interpreted as follows: 22.519 · e<sup>1.3233·j</sup>

Helyes válasz.

$$H_2(e^{j\Theta_2}) = 25.9019 \cdot e^{(-2.0729 \cdot j)}$$

Your last answer was interpreted as follows: 25.9019 · e<sup>-2.0729·j</sup>

Helyes válasz.

$$H_3(e^{j\Theta_3}) = 13.8017 \cdot e^{(-2.8236 \cdot j)}$$

Your last answer was interpreted as follows: 13.8017 · e<sup>-2.8236·j</sup>

Helyes válasz.

3. Határozza meg a rendszer válaszában időfüggvényét a megadott gerjesztésre, ha a választ az alábbi alakban keressük:

$$y[k] = Y_0 + Y_1 \cos(N_1 \frac{2\pi}{7}k + X_1) + Y_2 \cos(N_2 \frac{2\pi}{7}k + X_2) + Y_3 \cos(N_3 \frac{2\pi}{7}k + X_3)$$

$$\begin{aligned} Y_0 &= 42.7077, & Y_1 &= 103.5874, & N_1 &= 1, & X_1 &= \\ &2.1249, & Y_2 &= 64.7548, & N_2 &= 2, & X_2 &= \\ &-1.2713, & Y_3 &= 124.2153, & N_3 &= 3, & X_3 &= \\ &0.1428 \end{aligned}$$

Your last answer was interpreted as follows: 42.7077

Your last answer was interpreted as follows: 103.5874

Your last answer was interpreted as follows: 2.1249

Your last answer was interpreted as follows: 64.7548

Your last answer was interpreted as follows: 2

Your last answer was interpreted as follows: -1.2713

Your last answer was interpreted as follows: 124.2153

Your last answer was interpreted as follows: 3

Your last answer was interpreted as follows: 0.1428

Your last answer was interpreted as follows: 1

Részben helyes válasz.

$X_1$  értéke helytelen!

$X_3$  értéke helytelen!

Részben helyes válasz.

A correct answer is 7, which can be typed in as follows: 7

A correct answer is  $-5.33846153846$ , which can be typed in as follows: -5.33846153846

A correct answer is  $\frac{11.54 \cdot e^{\frac{2j\pi}{7}} - 18.48}{e^{\frac{4j\pi}{7}} - 0.5 \cdot e^{\frac{2j\pi}{7}} + 0.8}$ , which can be typed in as follows:

(11.54\*e^((2\*i\*pi)/7)-18.48)/(e^((4\*i\*pi)/7)-0.5\*e^((2\*i\*pi)/7)+0.8)

A correct answer is  $\frac{11.54 \cdot e^{\frac{4j\pi}{7}} - 18.48}{-0.5 \cdot e^{\frac{4j\pi}{7}} + e^{\frac{6j\pi}{7}} + 0.8}$ , which can be typed in as follows:

(11.54\*e^((4\*i\*pi)/7)-18.48)/((-0.5\*e^((4\*i\*pi)/7))+e^((6\*i\*pi)/7)+0.8)

A correct answer is  $\frac{11.54 \cdot e^{\frac{6j\pi}{7}} - 18.48}{-0.5 \cdot e^{\frac{6j\pi}{7}} + e^{\frac{2j\pi}{7}} + 0.8}$ , which can be typed in as follows:

(11.54\*e^((6\*i\*pi)/7)-18.48)/((-0.5\*e^((6\*i\*pi)/7))+e^((2\*i\*pi)/7)+0.8)

A correct answer is 42.7076923076, which can be typed in as follows: 42.7076923076

A correct answer is  $\frac{4.6 \cdot \sqrt{133.171599999 \cdot \sin^2\left(\frac{2\pi}{7}\right) + \left(11.54 \cdot \cos\left(\frac{2\pi}{7}\right) - 18.48\right)^2}}{\sqrt{\left(\sin\left(\frac{4\pi}{7}\right) - 0.5 \cdot \sin\left(\frac{2\pi}{7}\right)\right)^2 + \left(\cos\left(\frac{4\pi}{7}\right) - 0.5 \cdot \cos\left(\frac{2\pi}{7}\right) + 0.8\right)^2}}$ , which can be typed in as follows:

(4.6\*sqrt(133.171599999\*sin((2\*pi)/7)^2+(11.54\*cos((2\*pi)/7)-18.48)^2)/sqrt((sin((4\*pi)/7)-0.5\*sin((2\*pi)/7))^2+(cos((4\*pi)/7)-0.5\*cos((2\*pi)/7)+0.8)^2)

A correct answer is 1, which can be typed in as follows: 1

A correct answer is 1.21, which can be typed in as follows: 1.21

A correct answer is  $\frac{2.5 \cdot \sqrt{133.171599999 \cdot \sin^2\left(\frac{4\pi}{7}\right) + \left(11.54 \cdot \cos\left(\frac{4\pi}{7}\right) - 18.48\right)^2}}{\sqrt{\left(-\sin\left(\frac{6\pi}{7}\right) - 0.5 \cdot \sin\left(\frac{4\pi}{7}\right)\right)^2 + \left(\cos\left(\frac{6\pi}{7}\right) - 0.5 \cdot \cos\left(\frac{4\pi}{7}\right) + 0.8\right)^2}}$ , which can be typed in as follows:

(2.5\*sqrt(133.171599999\*sin((4\*pi)/7)^2+(11.54\*cos((4\*pi)/7)-18.48)^2)/sqrt((-sin((6\*pi)/7))-0.5\*sin((4\*pi)/7))^2+(cos((6\*pi)/7)-0.5\*cos((4\*pi)/7)+0.8)^2)

A correct answer is 2, which can be typed in as follows: 2

A correct answer is 1.87, which can be typed in as follows: 1.87

A correct answer is  $\frac{9.0 \cdot \sqrt{133.171599999 \cdot \sin^2\left(\frac{6\pi}{7}\right) + \left(11.54 \cdot \cos\left(\frac{6\pi}{7}\right) - 18.48\right)^2}}{\sqrt{\left(-0.5 \cdot \sin\left(\frac{6\pi}{7}\right) - \sin\left(\frac{2\pi}{7}\right)\right)^2 + \left(-0.5 \cdot \cos\left(\frac{6\pi}{7}\right) + \cos\left(\frac{2\pi}{7}\right) + 0.8\right)^2}}$ , which can be typed in as follows:

(9.0\*sqrt(133.171599999\*sin((6\*pi)/7)^2+(11.54\*cos((6\*pi)/7)-18.48)^2)/sqrt((-0.5\*sin((6\*pi)/7))-sin((2\*pi)/7))^2+((-0.5\*cos((6\*pi)/7))+cos((2\*pi)/7)+0.8)^2)

A correct answer is 3, which can be typed in as follows: 3

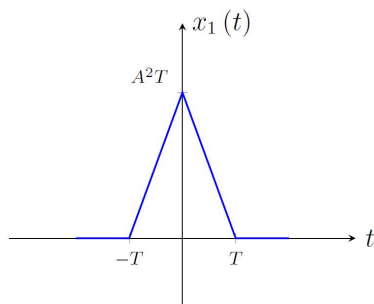
A correct answer is 0.5, which can be typed in as follows: 0.5

7 kérdés

Helyes

3,00 közül 3,00  
leosztályozva

1. Adja meg az alábbi ábrán látható  $x_1(t)$  szimmetrikus háromszögimpulzus komplex spektrumának  $C_1$ ,  $C_2$ ,  $C_3$  és  $\varphi$  paramétereit, ha  $A=1.8$ , és  $T=3.1$ .



A spektrum alakja:

$$X_1(j\omega) = C_1 \frac{\sin(\omega C_2)}{(\omega C_3)^2} \sin(\omega C_2) e^{-j\varphi}$$

$$C_1 = 31.1364$$

Your last answer was interpreted as follows: 31.1364

Helyes válasz.

$$C_2 = 1.55$$

Your last answer was interpreted as follows: 1.55

Helyes válasz.

$$C_3 = 1.55$$

Your last answer was interpreted as follows: 1.55

Helyes válasz.

$$\varphi = 0$$

Your last answer was interpreted as follows: 0

Helyes válasz.

2. Adja meg a spektrum valós ( $\text{Re}\{X_1(j\omega)\}$ ) és képzetes ( $\text{Im}\{X_1(j\omega)\}$ ) részének értékét az  $\omega=61$  körfrekvencián.

$$\text{Re}\{X_1(j61)\} = 0.0003$$

Your last answer was interpreted as follows:  $3.0E-4$

Helyes válasz.

$$\text{Im}\{X_1(j61)\} = 0$$

Your last answer was interpreted as follows: 0

Helyes válasz.

3. Adja meg az  $x_1(t)$  jel energiáját ( $E_1$ ).

$$E_1 = 208.489$$

Your last answer was interpreted as follows: 208.489

Helyes válasz.

Helyes válasz.

A correct answer is 31.1364, which can be typed in as follows: 31.1364

A correct answer is 1.55, which can be typed in as follows: 1.55

A correct answer is 1.55, which can be typed in as follows: 1.55

A correct answer is 0, which can be typed in as follows: 0

A correct answer is  $3.0855313323E-4$ , which can be typed in as follows:

A correct answer is 0, which can be typed in as follows:

A correct answer is 208.4893344, which can be typed in as follows:

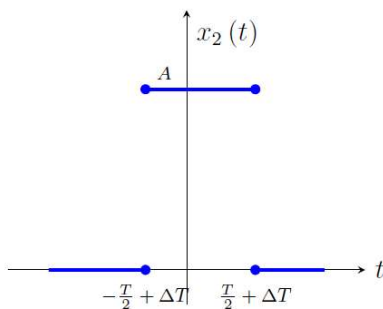


## 8 kérdés

Részben helyes

2,65 közül 3,00  
leosztályozva

1. Adja meg az alábbi ábrán látható  $x_2(t)$  szimmetrikus, eltolt négyszögimpulzus komplex spektrumának  $C_1$ ,  $C_2$ ,  $C_3$  és  $C_4$  paramétereit, ha az impulzus amplitúdója  $A=7.7$ , a szélessége  $T=4.1$  és az eltolás  $\Delta T = 20$ .



A spektrum alakja:

$$X_2(j\omega) = C_1 \frac{\sin(\omega C_2)}{\omega C_3} e^{-j\omega C_4}$$

$$C_1 = 31.57$$

Your last answer was interpreted as follows: 31.57

Helyes válasz.  $C_2 = 2.05$

Your last answer was interpreted as follows: 2.05

Helyes válasz.

$$C_3 = 2.05$$

Your last answer was interpreted as follows: 2.05

Helyes válasz.  $C_4 = 20$

Your last answer was interpreted as follows: 20

Helyes válasz.

2. Adja meg a spektrum valós ( $Re\{X_2(j\omega)\}$ ) és képzetes ( $Im\{X_2(j\omega)\}$ ) részének  $C_5$  -  $C_{14}$  paramétereit, ha a függvények alakjai a következők:

$$Re\{X_2(j\omega)\} = C_5 \frac{\sin(\omega C_6)}{\omega C_7} \cos(\omega C_8) e^{j\omega C_9}$$

$$Im\{X_2(j\omega)\} = -C_{10} \frac{\sin(\omega C_{11})}{\omega C_{12}} \sin(\omega C_{13}) e^{j\omega C_{14}}$$

$$C_5 = 31.57$$

Your last answer was interpreted as follows: 31.57

Helyes válasz.  $C_6 = 2.05$

Your last answer was interpreted as follows: 2.05

Helyes válasz.

$$C_7 = 2.05$$

Your last answer was interpreted as follows: 2.05

Helyes válasz.  $C_8 = 20$

Your last answer was interpreted as follows: 20

Helyes válasz.

$$C_9 = 0$$

Your last answer was interpreted as follows: 0

Helyes válasz.  $C_{10} = 31.5$

Your last answer was interpreted as follows: 31.5

Helyes válasz.

$$C_{11} = 2.05$$

Your last answer was interpreted as follows: 2.05

Helyes válasz.  $C_{12} = 2.05$

Your last answer was interpreted as follows: 2.05

Helyes válasz.

$$C_{13} = 20$$

Your last answer was interpreted as follows: 20

Helyes válasz.  $C_{14} = 0$

Your last answer was interpreted as follows: 0

Helyes válasz.

3. Adja meg a spektrum valós ( $Re\{X_2(j\omega)\}$ ) és képzetes ( $Im\{X_2(j\omega)\}$ ) részének értékét az  $\omega=75$  körfrekvencián.

$$Re\{X_2(j75)\} = -0.0225$$

Your last answer was interpreted as follows: -0.0225

Helytelen válasz.

A spektrum valós részének az értéke az adott körfrekvencián helytelen!  $Im\{X_2(j75)\} = 0.2032$

Your last answer was interpreted as follows: 0.2032

Helytelen válasz.

A spektrum valós részének az értéke az adott körfrekvencián helytelen!

4. Adja meg az  $x_2(t)$  jel energiáját ( $E_2$ ).

$$E_2 = 243.089$$

Your last answer was interpreted as follows: 243.089

Helyes válasz.

Részben helyes válasz.

A correct answer is 31.5699999999, which can be typed in as follows: 31.5699999999

A correct answer is 2.05, which can be typed in as follows: 2.05

A correct answer is 2.05, which can be typed in as follows: 2.05

A correct answer is 20, which can be typed in as follows: 20

A correct answer is 31.5699999999, which can be typed in as follows: 31.5699999999

A correct answer is 2.05, which can be typed in as follows: 2.05

A correct answer is 2.05, which can be typed in as follows: 2.05

A correct answer is 20, which can be typed in as follows: 20

A correct answer is 0, which can be typed in as follows: 0

A correct answer is 31.5699999999, which can be typed in as follows: 31.5699999999

A correct answer is 2.05, which can be typed in as follows: 2.05

A correct answer is 2.05, which can be typed in as follows: 2.05

A correct answer is 20, which can be typed in as follows: 20

A correct answer is 0, which can be typed in as follows: 0

A correct answer is  $0.038383746548 \cdot \cos(1500)$ , which can be typed in as follows: 0.038383746548\*cos(1500)

A correct answer is  $-0.038383746548 \cdot \sin(1500)$ , which can be typed in as follows: -0.038383746548\*sin(1500)

A correct answer is 243.089, which can be typed in as follows: 243.089

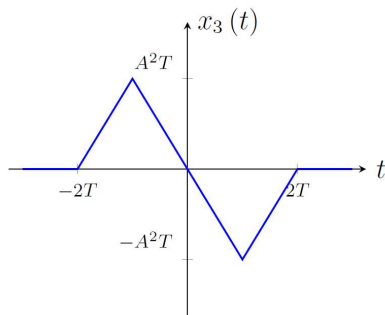
9 kérdés

Nincs rá válasz

3,00 közül

leosztályozva

1. Adja meg az alábbi ábrán látható  $x_3(t)$  jel komplex spektrumának  $C_1$ ,  $C_2$ ,  $C_3$  és  $C_4$  paramétereit, ha  $A=1.8$  és  $T=3.1$ .



A spektrum alakja:

$$X_3(j\omega) = C_1 \frac{\sin^2(\omega C_2)}{(\omega C_3)^2} \sin(\omega C_4) e^{jC_5}$$

$$C_1 =$$

$$C_2 =$$

$$C_3 =$$

$$C_4 =$$

$$C_5 =$$

2. Adja meg a spektrum valós ( $Re\{X_3(j\omega)\}$ ) és képzetes ( $Im\{X_3(j\omega)\}$ ) részének  $C_6$  -  $C_{11}$  paramétereit, ha a függvények alakjai a következők:

$$Re\{X_3(j\omega)\} = C_6$$

$$Im\{X_3(j\omega)\} = C_7 \frac{\sin^2(\omega C_8)}{(\omega C_9)^2} \sin(\omega C_{10}) e^{jC_{11}}$$

$$C_6 =$$

$$C_7 =$$

$$C_8 =$$

$$C_9 =$$

$$C_{10} =$$

$$C_{11} =$$

3. Adja meg a spektrum valós ( $Re\{X_3(j\omega)\}$ ) és képzetes ( $Im\{X_3(j\omega)\}$ ) részének értékét az  $\omega=61$  körfrekvencián.

$$Re\{X_3(j61)\} =$$

$$Im\{X_3(j61)\} =$$

4. Adja meg az  $x_3(t)$  jel energiáját ( $E_3$ ).

$$E_3 =$$

A correct answer is 62.2728, which can be typed in as follows: 62.2728

A correct answer is 1.55, which can be typed in as follows: 1.55

A correct answer is 1.55, which can be typed in as follows: 1.55

A correct answer is 3.1, which can be typed in as follows: 3.1

A correct answer is  $\frac{\pi}{2}$ , which can be typed in as follows: %pi/2

A correct answer is 0, which can be typed in as follows: 0

A correct answer is 62.2728, which can be typed in as follows: 62.2728

A correct answer is 1.55, which can be typed in as follows: 1.55

A correct answer is 1.55, which can be typed in as follows: 1.55

A correct answer is 3.1, which can be typed in as follows: 3.1

A correct answer is 0, which can be typed in as follows: 0

A correct answer is 0, which can be typed in as follows: 0

A correct answer is  $3.50702744894E-4$ , which can be typed in as follows: 3.50702744894E-4

A correct answer is 416.9786688, which can be typed in as follows: 416.9786688

◀ 1. Házi feladat

Ugrás...

3. Házi feladat ▶

