Za koji od navedenih vremenski diskretnih signala [y( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y%28%20n%20%29) vrijedi [x( n ) \ast y( n )=x( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%20%5Cast%20y%28%20n%20%29%3Dx%28%20n%20%29)?

Odaberite jedan odgovor:

A. [\delta( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdelta%28%20n%20%29)

Svaka čast! cool

B. [\step( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cstep%28%20n%20%29)

C. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

D. [\step( n ) - \step(n-2)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cstep%28%20n%20%29%20-%20%5Cstep%28n-2%29)

E. [1](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=1)

F. [x( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29)

Povratna informacija

Točan odgovor je: [\delta( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdelta%28%20n%20%29)

**Pitanje 2**

Točno

Broj bodova: 1,00 od 1,00

Označi pitanje

Tekst pitanja

Neki složeni vremenski diskretni sustav se sastoji od kaskade dvaju linearnih vremenski stalnih sustava čiji impulsni odzivi su [h_1( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h_1%28%20n%20%29) i [h_2( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h_2%28%20n%20%29). Ako na ulaz u kaskadu dovedemo signal [x( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29) što ćemo dobiti na izlazu?

Odaberite jedan odgovor:

A. [x( n )\ast h_1( n ) \ast h_2( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%5Cast%20h_1%28%20n%20%29%20%5Cast%20h_2%28%20n%20%29)

Suuuper!

B. Ovisi o poretku sustava čiji su impulsni odzivi [h_1( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h_1%28%20n%20%29) i [h_2( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h_2%28%20n%20%29)!

C. [h_1\bigl(x( n )\bigr)h_2( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h_1%5Cbigl%28x%28%20n%20%29%5Cbigr%29h_2%28%20n%20%29)

D. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

E. [\bigl( x( n ) \ast h_1( n )\bigr)  h_2( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cbigl%28%20x%28%20n%20%29%20%5Cast%20h_1%28%20n%20%29%5Cbigr%29%20%20h_2%28%20n%20%29)

F. [x( n )\bigl(  h_1( n ) \ast h_2( n )\bigr)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%5Cbigl%28%20%20h_1%28%20n%20%29%20%5Cast%20h_2%28%20n%20%29%5Cbigr%29)

Povratna informacija

Točan odgovor je: [x( n )\ast h_1( n ) \ast h_2( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%5Cast%20h_1%28%20n%20%29%20%5Cast%20h_2%28%20n%20%29)

**Pitanje 3**

Netočno

Broj bodova: -0,50 od 1,00

Označi pitanje

Tekst pitanja

Konvolucija vremenski kontinuiranih signala konačne energije JEST asocijativna operacija!

Odaberite jedan odgovor:

a. netočno

b. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

c. točno

Povratna informacija

Točan odgovor je: točno

**Pitanje 4**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Konvolucija [x( t ) \ast \bigl(\dirac(t+2)+\dirac(t-3)\bigr)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%20%5Cast%20%5Cbigl%28%5Cdirac%28t%2B2%29%2B%5Cdirac%28t-3%29%5Cbigr%29) je:

Odaberite jedan odgovor:

A. [\step(t-2)+\step(t+3)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cstep%28t-2%29%2B%5Cstep%28t%2B3%29)

B. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

C. [x(t-3)+x(t+2)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28t-3%29%2Bx%28t%2B2%29)

D. [1](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=1)

E. [x( t ) \bigl(\step(t-2)+\step(t+3)\bigr)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%20%5Cbigl%28%5Cstep%28t-2%29%2B%5Cstep%28t%2B3%29%5Cbigr%29)

F. [x(3-t)+x(2+t)*\step( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%283-t%29%2Bx%282%2Bt%29%2A%5Cstep%28%20t%20%29)

Povratna informacija

Točan odgovor je: [x(t-3)+x(t+2)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28t-3%29%2Bx%28t%2B2%29)

**Pitanje 5**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Konvolucija [\bigl(x( n )+y( n ) \ast \delta( n+5 )\bigr) \ast \delta( n-2 )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cbigl%28x%28%20n%20%29%2By%28%20n%20%29%20%5Cast%20%5Cdelta%28%20n%2B5%20%29%5Cbigr%29%20%5Cast%20%5Cdelta%28%20n-2%20%29) je:

Odaberite jedan odgovor:

A. [x( n+2 )+y( n+8 )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%2B2%20%29%2By%28%20n%2B8%20%29)

B. [x( n-2 ) \cdot \step( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n-2%20%29%20%5Ccdot%20%5Cstep%28%20n%20%29)

C. [x( n-2 )+y( n+3 )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n-2%20%29%2By%28%20n%2B3%20%29)

D. [x( n+2 )+y( n-3 )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%2B2%20%29%2By%28%20n-3%20%29)

E. [x( n )+y( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2By%28%20n%20%29)

F. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

Povratna informacija

Točan odgovor je: [x( n-2 )+y( n+3 )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n-2%20%29%2By%28%20n%2B3%20%29)

**Pitanje 6**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Samo jedno od navedenih svojstva jest svojstvo ASOCIJATIVNOSTI konvolucije vremenski diskretnih signala konačne energije! Koje? [x( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29),[y( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y%28%20n%20%29) i [z( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=z%28%20n%20%29) su vremenski diskretni signali dok je [m](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=m) cijeli broj.

Odaberite jedan odgovor:

A. [x( n )*\bigl(y( n ) + z( n )\bigr)=x( n )*y( n )+x( n )*z( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2A%5Cbigl%28y%28%20n%20%29%20%2B%20z%28%20n%20%29%5Cbigr%29%3Dx%28%20n%20%29%2Ay%28%20n%20%29%2Bx%28%20n%20%29%2Az%28%20n%20%29)

B. [x( n )*\delta( n )=\delta( n )*x( n )=x( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2A%5Cdelta%28%20n%20%29%3D%5Cdelta%28%20n%20%29%2Ax%28%20n%20%29%3Dx%28%20n%20%29)

C. [x( n )*y( n )=y( n )*x( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2Ay%28%20n%20%29%3Dy%28%20n%20%29%2Ax%28%20n%20%29)

D. [x( n + m )*y( n )=x( n )*y( n + m )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%2B%20m%20%29%2Ay%28%20n%20%29%3Dx%28%20n%20%29%2Ay%28%20n%20%2B%20m%20%29)

E. [x( n )*\bigl(y( n )*z( n )\bigr)=\bigl(x( n )*y( n )\bigr)*z( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2A%5Cbigl%28y%28%20n%20%29%2Az%28%20n%20%29%5Cbigr%29%3D%5Cbigl%28x%28%20n%20%29%2Ay%28%20n%20%29%5Cbigr%29%2Az%28%20n%20%29)

F. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

Povratna informacija

Točan odgovor je: [x( n )*\bigl(y( n )*z( n )\bigr)=\bigl(x( n )*y( n )\bigr)*z( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2A%5Cbigl%28y%28%20n%20%29%2Az%28%20n%20%29%5Cbigr%29%3D%5Cbigl%28x%28%20n%20%29%2Ay%28%20n%20%29%5Cbigr%29%2Az%28%20n%20%29)

**Pitanje 7**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Linearna konvolucija dva vremenski diskretna i KAUZALNA signala [x( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29) i [y( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y%28%20n%20%29) konačne energije je za [n\ge0](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=n%5Cge0) definirana izrazom:

Odaberite jedan odgovor:

A. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

B. [x( n )*y( n )=\sum_{i=-\infty}^{-n}x(i)y(n-i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2Ay%28%20n%20%29%3D%5Csum_%7Bi%3D-%5Cinfty%7D%5E%7B-n%7Dx%28i%29y%28n-i%29)

C. [x( n )*y( n )=\sum_{i=-n}^{n}x(i)y(n-i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2Ay%28%20n%20%29%3D%5Csum_%7Bi%3D-n%7D%5E%7Bn%7Dx%28i%29y%28n-i%29)

D. [x( n )*y( n )=\sum_{i=0}^{n}x(i)y(n-i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2Ay%28%20n%20%29%3D%5Csum_%7Bi%3D0%7D%5E%7Bn%7Dx%28i%29y%28n-i%29)

E. [x( n )*y( n )=\sum_{i=-n}^{+\infty}x(i)y(n+i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2Ay%28%20n%20%29%3D%5Csum_%7Bi%3D-n%7D%5E%7B%2B%5Cinfty%7Dx%28i%29y%28n%2Bi%29)

F. [x( n )*y( n )=0](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2Ay%28%20n%20%29%3D0)

Povratna informacija

Točan odgovor je: [x( n )*y( n )=\sum_{i=0}^{n}x(i)y(n-i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2Ay%28%20n%20%29%3D%5Csum_%7Bi%3D0%7D%5E%7Bn%7Dx%28i%29y%28n-i%29)

**Pitanje 8**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Konvolucijom dva jedinična skoka [\step( t ) \ast \step( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cstep%28%20t%20%29%20%5Cast%20%5Cstep%28%20t%20%29) dobivamo:

Odaberite jedan odgovor:

A. [\step( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cstep%28%20t%20%29)

B. [t  \step( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=t%20%20%5Cstep%28%20t%20%29)

C. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

D. [\dirac( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdirac%28%20t%20%29)

E. [1](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=1)

F. Irski step ples

Povratna informacija

Točan odgovor je: [t  \step( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=t%20%20%5Cstep%28%20t%20%29)

**Pitanje 9**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Neki složeni vremenski kontinuirani sustav se sastoji od kaskade dvaju linearnih vremenski stalnih sustava čiji impulsni odzivi su [h_1( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h_1%28%20t%20%29) i [h_2( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h_2%28%20t%20%29). Ako na ulaz u kaskadu dovedemo signal [x( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29) što ćemo dobiti na izlazu?

Odaberite jedan odgovor:

A. [h_1\bigl(x( t )\bigr)h_2( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h_1%5Cbigl%28x%28%20t%20%29%5Cbigr%29h_2%28%20t%20%29)

B. [x( t )\bigl(  h_1( t ) \ast h_2( t )\bigr)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%5Cbigl%28%20%20h_1%28%20t%20%29%20%5Cast%20h_2%28%20t%20%29%5Cbigr%29)

C. [x( t )\ast h_1( t ) \ast h_2( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%5Cast%20h_1%28%20t%20%29%20%5Cast%20h_2%28%20t%20%29)

D. [\bigl( x( t ) \ast h_1( t )\bigr)  h_2( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cbigl%28%20x%28%20t%20%29%20%5Cast%20h_1%28%20t%20%29%5Cbigr%29%20%20h_2%28%20t%20%29)

E. Ovisi o poretku sustava čiji su impulsni odzivi [h_1( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h_1%28%20t%20%29) i [h_2( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h_2%28%20t%20%29)!

F. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

Povratna informacija

Točan odgovor je: [x( t )\ast h_1( t ) \ast h_2( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%5Cast%20h_1%28%20t%20%29%20%5Cast%20h_2%28%20t%20%29)

**Pitanje 10**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Linearna konvolucija dva vremenski kontinuirana i KAUZALNA signala [x( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29) i [y( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y%28%20t%20%29) konačne energije jest za [t<0](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=t%3C0) definirana izrazom:

Odaberite jedan odgovor:

A. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

B. [x( t )*y( t )=\int_{-\infty}^{-t}x(\tau)y(t-\tau)\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2Ay%28%20t%20%29%3D%5Cint_%7B-%5Cinfty%7D%5E%7B-t%7Dx%28%5Ctau%29y%28t-%5Ctau%29%5C%2Cd%5Ctau)

C. [x( t )*y( t )=0](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2Ay%28%20t%20%29%3D0)

D. [x( t )*y( t )=\int_{-t}^{+\infty}x(\tau)y(t-\tau)\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2Ay%28%20t%20%29%3D%5Cint_%7B-t%7D%5E%7B%2B%5Cinfty%7Dx%28%5Ctau%29y%28t-%5Ctau%29%5C%2Cd%5Ctau)

E. [x( t )*y( t )=\int_{-t}^{t}x(\tau)y(t-\tau)\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2Ay%28%20t%20%29%3D%5Cint_%7B-t%7D%5E%7Bt%7Dx%28%5Ctau%29y%28t-%5Ctau%29%5C%2Cd%5Ctau)

F. [x( t )*y( t )=\int_{0}^{t}x(\tau)y(t-\tau)\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2Ay%28%20t%20%29%3D%5Cint_%7B0%7D%5E%7Bt%7Dx%28%5Ctau%29y%28t-%5Ctau%29%5C%2Cd%5Ctau)

Povratna informacija

Točan odgovor je: [x( t )*y( t )=0](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2Ay%28%20t%20%29%3D0)

Konvolucija [(a t+b) \ast \dirac(c t-t_0)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%28a%20t%2Bb%29%20%5Cast%20%5Cdirac%28c%20t-t_0%29) ([t_0](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=t_0), [a](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=a), [b](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=b) i [c](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=c) su realne konstante, [t](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=t) je vrijeme) je:

Odaberite jedan odgovor:

A. [a/|c|(t- t_0/c)+b/|c|](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=a%2F%7Cc%7C%28t-%20t_0%2Fc%29%2Bb%2F%7Cc%7C)

B. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

C. [a(t- t_0/c)+b](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=a%28t-%20t_0%2Fc%29%2Bb)

D. Ništa od navedenoga!

E. [at_0/c+b](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=at_0%2Fc%2Bb)

F. [a (t-t_0/c)+2b  \dirac(t-t_0/c)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=a%20%28t-t_0%2Fc%29%2B2b%20%20%5Cdirac%28t-t_0%2Fc%29)

Povratna informacija

Točan odgovor je: [a/|c|(t- t_0/c)+b/|c|](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=a%2F%7Cc%7C%28t-%20t_0%2Fc%29%2Bb%2F%7Cc%7C)

**Pitanje 2**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Periodična (cirkularna ili kruža) konvolucija dva vremenski kontinuirana signala [x( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29) i [y( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y%28%20t%20%29) konačne snage i perioda [T](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=T) je definirana izrazom:

Odaberite jedan odgovor:

A. [x( t )\ccnv{*}y( t )=\int_{0}^{T}x(\tau)y(t+\tau)\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%5Cccnv%7B%2A%7Dy%28%20t%20%29%3D%5Cint_%7B0%7D%5E%7BT%7Dx%28%5Ctau%29y%28t%2B%5Ctau%29%5C%2Cd%5Ctau)

B. [x( t )\ccnv{*}y( t )=\int_{-\infty}^{+\infty}x(\tau)y(t+\tau)\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%5Cccnv%7B%2A%7Dy%28%20t%20%29%3D%5Cint_%7B-%5Cinfty%7D%5E%7B%2B%5Cinfty%7Dx%28%5Ctau%29y%28t%2B%5Ctau%29%5C%2Cd%5Ctau)

C. [x( t )\ccnv{*}y( t )=\int_{0}^{T}x(\tau)y(t-\tau)\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%5Cccnv%7B%2A%7Dy%28%20t%20%29%3D%5Cint_%7B0%7D%5E%7BT%7Dx%28%5Ctau%29y%28t-%5Ctau%29%5C%2Cd%5Ctau)

D. [x( t )\ccnv{*}y( t )=\int_{-\infty}^{+\infty}x(\tau)y(t-\tau)\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%5Cccnv%7B%2A%7Dy%28%20t%20%29%3D%5Cint_%7B-%5Cinfty%7D%5E%7B%2B%5Cinfty%7Dx%28%5Ctau%29y%28t-%5Ctau%29%5C%2Cd%5Ctau)

E. [x( t )\ccnv{*}y( t )=\int_{0}^{t}x(\tau)y(t+\tau)\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%5Cccnv%7B%2A%7Dy%28%20t%20%29%3D%5Cint_%7B0%7D%5E%7Bt%7Dx%28%5Ctau%29y%28t%2B%5Ctau%29%5C%2Cd%5Ctau)

F. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

Povratna informacija

Točan odgovor je: [x( t )\ccnv{*}y( t )=\int_{0}^{T}x(\tau)y(t-\tau)\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%5Cccnv%7B%2A%7Dy%28%20t%20%29%3D%5Cint_%7B0%7D%5E%7BT%7Dx%28%5Ctau%29y%28t-%5Ctau%29%5C%2Cd%5Ctau)

**Pitanje 3**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Promatramo li konvolucije vremenski diskretnih signala koji nemaju konačnu energiju tada svojstvo asocijativnosti konvolucije NE vrijedi!

Odaberite jedan odgovor:

a. netočno

b. točno

c. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

Povratna informacija

Točan odgovor je: točno

**Pitanje 4**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Linearna konvolucija dva vremenski diskretna signala [x( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29) i [y( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y%28%20n%20%29) konačne energije je definirana izrazom:

Odaberite jedan odgovor:

A. [x( n )*y( n )=\sum_{i=-\infty}^{+\infty}x(i)y(n+i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2Ay%28%20n%20%29%3D%5Csum_%7Bi%3D-%5Cinfty%7D%5E%7B%2B%5Cinfty%7Dx%28i%29y%28n%2Bi%29)

B. [x( n )*y( n )=\sum_{i=0}^{N-1}x(i)y(n+i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2Ay%28%20n%20%29%3D%5Csum_%7Bi%3D0%7D%5E%7BN-1%7Dx%28i%29y%28n%2Bi%29)

C. [x( n )*y( n )=\sum_{i=0}^{N-1}x(i)y(n-i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2Ay%28%20n%20%29%3D%5Csum_%7Bi%3D0%7D%5E%7BN-1%7Dx%28i%29y%28n-i%29)

D. [x( n )*y( n )=\sum_{i=0}^{N-1}x(i)y(n-i \bmod{N})](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2Ay%28%20n%20%29%3D%5Csum_%7Bi%3D0%7D%5E%7BN-1%7Dx%28i%29y%28n-i%20%5Cbmod%7BN%7D%29)

E. [x( n )*y( n )=\sum_{i=-\infty}^{+\infty}x(i)y(n-i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2Ay%28%20n%20%29%3D%5Csum_%7Bi%3D-%5Cinfty%7D%5E%7B%2B%5Cinfty%7Dx%28i%29y%28n-i%29)

F. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

Povratna informacija

Točan odgovor je: [x( n )*y( n )=\sum_{i=-\infty}^{+\infty}x(i)y(n-i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2Ay%28%20n%20%29%3D%5Csum_%7Bi%3D-%5Cinfty%7D%5E%7B%2B%5Cinfty%7Dx%28i%29y%28n-i%29)

**Pitanje 5**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Za koju od navedenih funkcija [y( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y%28%20n%20%29) vrijedi [x( n ) \ast y( n )=x( n+1 )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%20%5Cast%20y%28%20n%20%29%3Dx%28%20n%2B1%20%29)?

Odaberite jedan odgovor:

A. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

B. [x( n+1 )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%2B1%20%29)

C. [\delta( n-1 )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdelta%28%20n-1%20%29)

D. [\step( n+1 )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cstep%28%20n%2B1%20%29)

E. [\step( n-1 )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cstep%28%20n-1%20%29)

F. [\delta( n+1 )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdelta%28%20n%2B1%20%29)

Povratna informacija

Točan odgovor je: [\delta( n+1 )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdelta%28%20n%2B1%20%29)

**Pitanje 6**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Konvolucija [\bigl(x( t )+y( t ) \ast \dirac(t+2)\bigr) \ast \dirac(t-1)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cbigl%28x%28%20t%20%29%2By%28%20t%20%29%20%5Cast%20%5Cdirac%28t%2B2%29%5Cbigr%29%20%5Cast%20%5Cdirac%28t-1%29) je:

Odaberite jedan odgovor:

A. [y(t-1)+x(t+1)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y%28t-1%29%2Bx%28t%2B1%29)

B. [x(t-1) \step( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28t-1%29%20%5Cstep%28%20t%20%29)

C. [x(t-1)+y(t+1)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28t-1%29%2By%28t%2B1%29)

D. [x(t+1)+y(t+3)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28t%2B1%29%2By%28t%2B3%29)

E. [x(t-1)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28t-1%29)

F. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

Povratna informacija

Točan odgovor je: [x(t-1)+y(t+1)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28t-1%29%2By%28t%2B1%29)

**Pitanje 7**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Neki složeni vremenski kontinuirani sustav se sastoji od paralenog spoja dvaju linearnih vremenski stalnih sustava čiji impulsni odzivi su [h_1( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h_1%28%20t%20%29) i [h_2( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h_2%28%20t%20%29). Ako na ulaz u paralelnog spoja dovedemo signal [x( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29) što ćemo dobiti na izlazu?

Odaberite jedan odgovor:

A. [h_1\bigl(x( t )\bigr)h_2( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h_1%5Cbigl%28x%28%20t%20%29%5Cbigr%29h_2%28%20t%20%29)

B. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

C. [\bigl( x( t ) \ast h_1( t )\bigr)  h_2( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cbigl%28%20x%28%20t%20%29%20%5Cast%20h_1%28%20t%20%29%5Cbigr%29%20%20h_2%28%20t%20%29)

D. [x( t )\ast\bigl(  h_1( t ) + h_2( t )\bigr)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%5Cast%5Cbigl%28%20%20h_1%28%20t%20%29%20%2B%20h_2%28%20t%20%29%5Cbigr%29)

E. [x( t )\bigl(  h_1( t ) \ast h_2( t )\bigr)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%5Cbigl%28%20%20h_1%28%20t%20%29%20%5Cast%20h_2%28%20t%20%29%5Cbigr%29)

F. [x( t )\ast h_1( t ) \ast h_2( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%5Cast%20h_1%28%20t%20%29%20%5Cast%20h_2%28%20t%20%29)

Povratna informacija

Točan odgovor je: [x( t )\ast\bigl(  h_1( t ) + h_2( t )\bigr)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%5Cast%5Cbigl%28%20%20h_1%28%20t%20%29%20%2B%20h_2%28%20t%20%29%5Cbigr%29)

**Pitanje 8**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Samo jedno od navedenih svojstva jest svojstvo DISTRIBUTIVNOSTI konvolucije vremenski kontinuiranih signala konačne energije! Koje? [x( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29), [y( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y%28%20t%20%29) i [z( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=z%28%20t%20%29) su vremenski kontinuirani signali dok je [T](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=T) realan broj.

Odaberite jedan odgovor:

A. [x( t )*\bigl(y( t ) + z( t )\bigr)=x( t )*y( t )+x( t )*z( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2A%5Cbigl%28y%28%20t%20%29%20%2B%20z%28%20t%20%29%5Cbigr%29%3Dx%28%20t%20%29%2Ay%28%20t%20%29%2Bx%28%20t%20%29%2Az%28%20t%20%29)

B. [x( t )*\dirac( t )=\dirac( t )*x( t )=x( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2A%5Cdirac%28%20t%20%29%3D%5Cdirac%28%20t%20%29%2Ax%28%20t%20%29%3Dx%28%20t%20%29)

C. [x( t )*y( t )=y( t )*x( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2Ay%28%20t%20%29%3Dy%28%20t%20%29%2Ax%28%20t%20%29)

D. [x( n + T )*y( t )=x( t )*y( n + T )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%2B%20T%20%29%2Ay%28%20t%20%29%3Dx%28%20t%20%29%2Ay%28%20n%20%2B%20T%20%29)

E. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

F. [x( t )*\bigl(y( t )*z( t )\bigr)=\bigl(x( t )*y( t )\bigr)*z( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2A%5Cbigl%28y%28%20t%20%29%2Az%28%20t%20%29%5Cbigr%29%3D%5Cbigl%28x%28%20t%20%29%2Ay%28%20t%20%29%5Cbigr%29%2Az%28%20t%20%29)

Povratna informacija

Točan odgovor je: [x( t )*\bigl(y( t ) + z( t )\bigr)=x( t )*y( t )+x( t )*z( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2A%5Cbigl%28y%28%20t%20%29%20%2B%20z%28%20t%20%29%5Cbigr%29%3Dx%28%20t%20%29%2Ay%28%20t%20%29%2Bx%28%20t%20%29%2Az%28%20t%20%29)

**Pitanje 9**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Konvolucija [\bigl(\step( n )\delta( n-1 )\delta( n+4 )+1\bigr) \ast \delta( n+2 )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cbigl%28%5Cstep%28%20n%20%29%5Cdelta%28%20n-1%20%29%5Cdelta%28%20n%2B4%20%29%2B1%5Cbigr%29%20%5Cast%20%5Cdelta%28%20n%2B2%20%29) je:

Odaberite jedan odgovor:

A. [\delta( n+3 )+1](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdelta%28%20n%2B3%20%29%2B1)

B. [\step( n+5 )+1](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cstep%28%20n%2B5%20%29%2B1)

C. [1](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=1)

D. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

E. [\step( n+5 )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cstep%28%20n%2B5%20%29)

F. [\delta( n+2 )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdelta%28%20n%2B2%20%29)

Povratna informacija

Točan odgovor je: [1](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=1)

**Pitanje 10**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Odziv vremenski diskretnog sustava [S\bigl[u( n )\bigr]=\sum_{i=n}^{0}u( i )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=S%5Cbigl%5Bu%28%20n%20%29%5Cbigr%5D%3D%5Csum_%7Bi%3Dn%7D%5E%7B0%7Du%28%20i%20%29) na Kroneckerov impuls [\delta( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdelta%28%20n%20%29) je:

Odaberite jedan odgovor:

A. [h( n )=\step( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h%28%20n%20%29%3D%5Cstep%28%20n%20%29)

B. [h( n )=\step( -n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h%28%20n%20%29%3D%5Cstep%28%20-n%20%29)

C. [h( n )=({1\over 2})^n\step( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h%28%20n%20%29%3D%28%7B1%5Cover%202%7D%29%5En%5Cstep%28%20n%20%29)

D. [h( n )=1](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h%28%20n%20%29%3D1)

E. [h( n )=n](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h%28%20n%20%29%3Dn)

F. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

Povratna informacija

Točan odgovor je: [h( n )=\step( -n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h%28%20n%20%29%3D%5Cstep%28%20-n%20%29)

Konvolucija [\bigl(\sin( n ) \ast \delta( n+1)\bigr)\delta( n-2)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cbigl%28%5Csin%28%20n%20%29%20%5Cast%20%5Cdelta%28%20n%2B1%29%5Cbigr%29%5Cdelta%28%20n-2%29) je:

Odaberite jedan odgovor:

A. [\sin( n )\ast\delta(n+1)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Csin%28%20n%20%29%5Cast%5Cdelta%28n%2B1%29)

B. [\sin( n )\ast\delta( n-1)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Csin%28%20n%20%29%5Cast%5Cdelta%28%20n-1%29)

C. [\sin ( n+1)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Csin%20%28%20n%2B1%29)

D. [\sin( n-1)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Csin%28%20n-1%29)

E. [\sin(3)\delta( n-2)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Csin%283%29%5Cdelta%28%20n-2%29)

F. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

Povratna informacija

Točan odgovor je: [\sin(3)\delta( n-2)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Csin%283%29%5Cdelta%28%20n-2%29)

**Pitanje 2**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Konvolucija [\dirac(t+3) \ast x(t+1) \ast \dirac(3 t-1) ](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdirac%28t%2B3%29%20%5Cast%20x%28t%2B1%29%20%5Cast%20%5Cdirac%283%20t-1%29%20) je:

Odaberite jedan odgovor:

A. [x(t+4-1/3)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28t%2B4-1%2F3%29)

B. [x(t+4-1/3)/3](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28t%2B4-1%2F3%29%2F3)

C. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

D. Ništa od navedenoga!

E. [x(t+1) \ast \dirac(3 t-1)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28t%2B1%29%20%5Cast%20%5Cdirac%283%20t-1%29)

F. [x(t+3-1/4)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28t%2B3-1%2F4%29)

Povratna informacija

Točan odgovor je: [x(t+4-1/3)/3](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28t%2B4-1%2F3%29%2F3)

**Pitanje 3**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Samo jedno od navedenih svojstva jest svojstvo KOMUTATIVNOSTI konvolucije vremenski diskretnih signala konačne energije! Koje? [x( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29), [y( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y%28%20n%20%29) i [z( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=z%28%20n%20%29) su vremenski diskretni signali dok je [m](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=m) cijeli broj.

Odaberite jedan odgovor:

A. [x( n )*\bigl(y( n )*z( n )\bigr)=\bigl(x( n )*y( n )\bigr)*z( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2A%5Cbigl%28y%28%20n%20%29%2Az%28%20n%20%29%5Cbigr%29%3D%5Cbigl%28x%28%20n%20%29%2Ay%28%20n%20%29%5Cbigr%29%2Az%28%20n%20%29)

B. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

C. [x( n )*\delta( n )=\delta( n )*x( n )=x( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2A%5Cdelta%28%20n%20%29%3D%5Cdelta%28%20n%20%29%2Ax%28%20n%20%29%3Dx%28%20n%20%29)

D. [x( n )*\bigl(y( n ) + z( n )\bigr)=x( n )*y( n )+x( n )*z( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2A%5Cbigl%28y%28%20n%20%29%20%2B%20z%28%20n%20%29%5Cbigr%29%3Dx%28%20n%20%29%2Ay%28%20n%20%29%2Bx%28%20n%20%29%2Az%28%20n%20%29)

E. [x( n )*y( n )=y( n )*x( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2Ay%28%20n%20%29%3Dy%28%20n%20%29%2Ax%28%20n%20%29)

F. [x( n + m )*y( n )=x( n )*y( n + m )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%2B%20m%20%29%2Ay%28%20n%20%29%3Dx%28%20n%20%29%2Ay%28%20n%20%2B%20m%20%29)

Povratna informacija

Točan odgovor je: [x( n )*y( n )=y( n )*x( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2Ay%28%20n%20%29%3Dy%28%20n%20%29%2Ax%28%20n%20%29)

**Pitanje 4**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Neki složeni vremenski kontinuirani sustav se sastoji od paralenog spoja dvaju linearnih vremenski stalnih sustava čiji impulsni odzivi su [h_1( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h_1%28%20t%20%29) i [h_2( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h_2%28%20t%20%29). Ako na ulaz u paralelnog spoja dovedemo signal [x( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29) što ćemo dobiti na izlazu?

Odaberite jedan odgovor:

A. [\bigl( x( t ) \ast h_1( t )\bigr)  h_2( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cbigl%28%20x%28%20t%20%29%20%5Cast%20h_1%28%20t%20%29%5Cbigr%29%20%20h_2%28%20t%20%29)

B. [x( t )\ast h_1( t ) \ast h_2( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%5Cast%20h_1%28%20t%20%29%20%5Cast%20h_2%28%20t%20%29)

C. [h_1\bigl(x( t )\bigr)h_2( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h_1%5Cbigl%28x%28%20t%20%29%5Cbigr%29h_2%28%20t%20%29)

D. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

E. [x( t )\bigl(  h_1( t ) \ast h_2( t )\bigr)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%5Cbigl%28%20%20h_1%28%20t%20%29%20%5Cast%20h_2%28%20t%20%29%5Cbigr%29)

F. [x( t )\ast\bigl(  h_1( t ) + h_2( t )\bigr)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%5Cast%5Cbigl%28%20%20h_1%28%20t%20%29%20%2B%20h_2%28%20t%20%29%5Cbigr%29)

Povratna informacija

Točan odgovor je: [x( t )\ast\bigl(  h_1( t ) + h_2( t )\bigr)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%5Cast%5Cbigl%28%20%20h_1%28%20t%20%29%20%2B%20h_2%28%20t%20%29%5Cbigr%29)

**Pitanje 5**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Neki složeni vremenski diskretni sustav se sastoji od kaskade dvaju linearnih vremenski stalnih sustava čiji impulsni odzivi su [h_1( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h_1%28%20n%20%29) i [h_2( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h_2%28%20n%20%29). Ako na ulaz u kaskadu dovedemo signal [x( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29) što ćemo dobiti na izlazu?

Odaberite jedan odgovor:

A. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

B. [x( n )\bigl(  h_1( n ) \ast h_2( n )\bigr)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%5Cbigl%28%20%20h_1%28%20n%20%29%20%5Cast%20h_2%28%20n%20%29%5Cbigr%29)

C. Ovisi o poretku sustava čiji su impulsni odzivi [h_1( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h_1%28%20n%20%29) i [h_2( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h_2%28%20n%20%29)!

D. [x( n )\ast h_1( n ) \ast h_2( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%5Cast%20h_1%28%20n%20%29%20%5Cast%20h_2%28%20n%20%29)

E. [h_1\bigl(x( n )\bigr)h_2( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h_1%5Cbigl%28x%28%20n%20%29%5Cbigr%29h_2%28%20n%20%29)

F. [\bigl( x( n ) \ast h_1( n )\bigr)  h_2( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cbigl%28%20x%28%20n%20%29%20%5Cast%20h_1%28%20n%20%29%5Cbigr%29%20%20h_2%28%20n%20%29)

Povratna informacija

Točan odgovor je: [x( n )\ast h_1( n ) \ast h_2( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%5Cast%20h_1%28%20n%20%29%20%5Cast%20h_2%28%20n%20%29)

**Pitanje 6**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Konvolucija [x( t ) \ast \bigl(\dirac(t+2)+\dirac(t-3)\bigr)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%20%5Cast%20%5Cbigl%28%5Cdirac%28t%2B2%29%2B%5Cdirac%28t-3%29%5Cbigr%29) je:

Odaberite jedan odgovor:

A. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

B. [x(3-t)+x(2+t)*\step( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%283-t%29%2Bx%282%2Bt%29%2A%5Cstep%28%20t%20%29)

C. [\step(t-2)+\step(t+3)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cstep%28t-2%29%2B%5Cstep%28t%2B3%29)

D. [x( t ) \bigl(\step(t-2)+\step(t+3)\bigr)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%20%5Cbigl%28%5Cstep%28t-2%29%2B%5Cstep%28t%2B3%29%5Cbigr%29)

E. [x(t-3)+x(t+2)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28t-3%29%2Bx%28t%2B2%29)

F. [1](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=1)

Povratna informacija

Točan odgovor je: [x(t-3)+x(t+2)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28t-3%29%2Bx%28t%2B2%29)

**Pitanje 7**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Samo jedna od navedenih tvrdnji o konvoluciji vremenski kontinuiranih signala konačne enerijge nije točna! Koja?

Odaberite jedan odgovor:

A. Konvolucija je kumulativna.

B. Konvolucija signala s Diracovom distribucijom [\dirac(t)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdirac%28t%29) daje taj isti signal.

C. Konvolucija je asocijativna.

D. Konvolucija je komutativna.

E. Konvolucija je distributivna

F. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

Povratna informacija

Točan odgovor je: Konvolucija je kumulativna.

**Pitanje 8**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Konvolucijom dva vremenski diskretna jedinična skoka [\step( n ) \ast \step( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cstep%28%20n%20%29%20%5Cast%20%5Cstep%28%20n%20%29) dobivamo:

Odaberite jedan odgovor:

A. [\delta( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdelta%28%20n%20%29)

B. [\step( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cstep%28%20n%20%29)

C. [1](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=1)

D. [n\step( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=n%5Cstep%28%20n%20%29)

E. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

F. [(n+1)\step( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%28n%2B1%29%5Cstep%28%20n%20%29)

Povratna informacija

Točan odgovor je: [(n+1)\step( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%28n%2B1%29%5Cstep%28%20n%20%29)

**Pitanje 9**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Linearna konvolucija dva vremenski kontinuirana i KAUZALNA signala [x( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29) i [y( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y%28%20t%20%29) konačne energije jest za [t\ge0](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=t%5Cge0) definirana izrazom:

Odaberite jedan odgovor:

A. [x( t )*y( t )=0](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2Ay%28%20t%20%29%3D0)

B. [x( t )*y( t )=\int_{-\infty}^{-t}x(\tau)y(t-\tau)\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2Ay%28%20t%20%29%3D%5Cint_%7B-%5Cinfty%7D%5E%7B-t%7Dx%28%5Ctau%29y%28t-%5Ctau%29%5C%2Cd%5Ctau)

C. [x( t )*y( t )=\int_{-t}^{t}x(\tau)y(t-\tau)\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2Ay%28%20t%20%29%3D%5Cint_%7B-t%7D%5E%7Bt%7Dx%28%5Ctau%29y%28t-%5Ctau%29%5C%2Cd%5Ctau)

D. [x( t )*y( t )=\int_{-t}^{+\infty}x(\tau)y(t-\tau)\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2Ay%28%20t%20%29%3D%5Cint_%7B-t%7D%5E%7B%2B%5Cinfty%7Dx%28%5Ctau%29y%28t-%5Ctau%29%5C%2Cd%5Ctau)

E. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

F. [x( t )*y( t )=\int_{0}^{t}x(\tau)y(t-\tau)\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2Ay%28%20t%20%29%3D%5Cint_%7B0%7D%5E%7Bt%7Dx%28%5Ctau%29y%28t-%5Ctau%29%5C%2Cd%5Ctau)

Povratna informacija

Točan odgovor je: [x( t )*y( t )=\int_{0}^{t}x(\tau)y(t-\tau)\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2Ay%28%20t%20%29%3D%5Cint_%7B0%7D%5E%7Bt%7Dx%28%5Ctau%29y%28t-%5Ctau%29%5C%2Cd%5Ctau)

**Pitanje 10**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Samo jedan od navedenih izraza jest definicija periodične (kružne ili cirkularne) konvolucija dva periodična vremenski diskretna signala [x( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29) i [y( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y%28%20n%20%29) konačne snage perioda [N](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=N). Koji?

Odaberite jedan odgovor:

A. [x( t )\ccnv{*}y( t )=\int_{0}^{T}x(\tau)y(t-\tau)\,d\tau ](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%5Cccnv%7B%2A%7Dy%28%20t%20%29%3D%5Cint_%7B0%7D%5E%7BT%7Dx%28%5Ctau%29y%28t-%5Ctau%29%5C%2Cd%5Ctau%20)

B. [x( t )*y( t )=\int_{-\infty}^{+\infty}x(\tau)y(t-\tau)\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2Ay%28%20t%20%29%3D%5Cint_%7B-%5Cinfty%7D%5E%7B%2B%5Cinfty%7Dx%28%5Ctau%29y%28t-%5Ctau%29%5C%2Cd%5Ctau)

C. [x( n )\ccnv{N}y( n )=\sum_{i=0}^{N-1}x(i)y(n-i \bmod{N})](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%5Cccnv%7BN%7Dy%28%20n%20%29%3D%5Csum_%7Bi%3D0%7D%5E%7BN-1%7Dx%28i%29y%28n-i%20%5Cbmod%7BN%7D%29)

D. [x( n )*y( n )=\sum_{i=-\infty}^{+\infty}x(i)y(n-i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2Ay%28%20n%20%29%3D%5Csum_%7Bi%3D-%5Cinfty%7D%5E%7B%2B%5Cinfty%7Dx%28i%29y%28n-i%29)

E. [x( n )\ccnv{*}y( n )=\sum_{i=0}^{N-1}x(i)y(n-i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%5Cccnv%7B%2A%7Dy%28%20n%20%29%3D%5Csum_%7Bi%3D0%7D%5E%7BN-1%7Dx%28i%29y%28n-i%29)

F. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

Povratna informacija

Točan odgovor je: [x( n )\ccnv{*}y( n )=\sum_{i=0}^{N-1}x(i)y(n-i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%5Cccnv%7B%2A%7Dy%28%20n%20%29%3D%5Csum_%7Bi%3D0%7D%5E%7BN-1%7Dx%28i%29y%28n-i%29)

Profesor tumači da je odziv vremenski diskretnog, vremenski stalnog i mirnog sustava na jedinični skok [\step( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cstep%28%20n%20%29) impulsni odziv sustava. Smatrate da je to:

Odaberite jedan odgovor:

a. netočno

b. točno

c. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

Povratna informacija

Točan odgovor je: netočno

**Pitanje 2**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Samo jedan od navedenih izraza jest definicija linearne konvolucija dva vremenski kontinuirana signala [x( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29) i [y( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y%28%20t%20%29) konačne energije. Koji?

Odaberite jedan odgovor:

A. [x( n )\ccnv{N}y( n )=\sum_{i=0}^{N-1}x(i)y(n-i \bmod{N})](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%5Cccnv%7BN%7Dy%28%20n%20%29%3D%5Csum_%7Bi%3D0%7D%5E%7BN-1%7Dx%28i%29y%28n-i%20%5Cbmod%7BN%7D%29)

B. [x( n )\ccnv{*}y( n )=\sum_{i=0}^{N-1}x(i)y(n-i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%5Cccnv%7B%2A%7Dy%28%20n%20%29%3D%5Csum_%7Bi%3D0%7D%5E%7BN-1%7Dx%28i%29y%28n-i%29)

C. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

D. [x( n )*y( n )=\sum_{i=-\infty}^{+\infty}x(i)y(n-i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2Ay%28%20n%20%29%3D%5Csum_%7Bi%3D-%5Cinfty%7D%5E%7B%2B%5Cinfty%7Dx%28i%29y%28n-i%29)

E. [x( t )*y( t )=\int_{-\infty}^{+\infty}x(\tau)y(t-\tau)\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2Ay%28%20t%20%29%3D%5Cint_%7B-%5Cinfty%7D%5E%7B%2B%5Cinfty%7Dx%28%5Ctau%29y%28t-%5Ctau%29%5C%2Cd%5Ctau)

F. [x( t )\ccnv{*}y( t )=\int_{0}^{T}x(\tau)y(t-\tau)\,d\tau ](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%5Cccnv%7B%2A%7Dy%28%20t%20%29%3D%5Cint_%7B0%7D%5E%7BT%7Dx%28%5Ctau%29y%28t-%5Ctau%29%5C%2Cd%5Ctau%20)

Povratna informacija

Točan odgovor je: [x( t )*y( t )=\int_{-\infty}^{+\infty}x(\tau)y(t-\tau)\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2Ay%28%20t%20%29%3D%5Cint_%7B-%5Cinfty%7D%5E%7B%2B%5Cinfty%7Dx%28%5Ctau%29y%28t-%5Ctau%29%5C%2Cd%5Ctau)

**Pitanje 3**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Linearna konvolucija dva vremenski diskretna i KAUZALNA signala [x( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29) i [y( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y%28%20n%20%29) konačne energije je za [n<0](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=n%3C0) definirana izrazom:

Odaberite jedan odgovor:

A. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

B. [x( n )*y( n )=\sum_{i=-n}^{n}x(i)y(n-i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2Ay%28%20n%20%29%3D%5Csum_%7Bi%3D-n%7D%5E%7Bn%7Dx%28i%29y%28n-i%29)

C. [x( n )*y( n )=\sum_{i=-n}^{+\infty}x(i)y(n+i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2Ay%28%20n%20%29%3D%5Csum_%7Bi%3D-n%7D%5E%7B%2B%5Cinfty%7Dx%28i%29y%28n%2Bi%29)

D. [x( n )*y( n )=\sum_{i=-\infty}^{-n}x(i)y(n-i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2Ay%28%20n%20%29%3D%5Csum_%7Bi%3D-%5Cinfty%7D%5E%7B-n%7Dx%28i%29y%28n-i%29)

E. [x( n )*y( n )=0](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2Ay%28%20n%20%29%3D0)

F. [x( n )*y( n )=\sum_{i=0}^{n}x(i)y(n-i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2Ay%28%20n%20%29%3D%5Csum_%7Bi%3D0%7D%5E%7Bn%7Dx%28i%29y%28n-i%29)

Povratna informacija

Točan odgovor je: [x( n )*y( n )=0](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2Ay%28%20n%20%29%3D0)

**Pitanje 4**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Za koji od navedenih vremenski diskretnih signala [y( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y%28%20n%20%29) vrijedi [x( n ) \ast y( n )=x( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%20%5Cast%20y%28%20n%20%29%3Dx%28%20n%20%29)?

Odaberite jedan odgovor:

A. [\step( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cstep%28%20n%20%29)

B. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

C. [x( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29)

D. [1](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=1)

E. [\delta( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdelta%28%20n%20%29)

F. [\step( n ) - \step(n-2)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cstep%28%20n%20%29%20-%20%5Cstep%28n-2%29)

Povratna informacija

Točan odgovor je: [\delta( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdelta%28%20n%20%29)

**Pitanje 5**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Samo jedno od navedenih svojstva jest svojstvo DISTRIBUTIVNOSTI konvolucije vremenski kontinuiranih signala konačne energije! Koje? [x( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29), [y( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y%28%20t%20%29) i [z( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=z%28%20t%20%29) su vremenski kontinuirani signali dok je [T](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=T) realan broj.

Odaberite jedan odgovor:

A. [x( t )*\bigl(y( t )*z( t )\bigr)=\bigl(x( t )*y( t )\bigr)*z( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2A%5Cbigl%28y%28%20t%20%29%2Az%28%20t%20%29%5Cbigr%29%3D%5Cbigl%28x%28%20t%20%29%2Ay%28%20t%20%29%5Cbigr%29%2Az%28%20t%20%29)

B. [x( t )*\dirac( t )=\dirac( t )*x( t )=x( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2A%5Cdirac%28%20t%20%29%3D%5Cdirac%28%20t%20%29%2Ax%28%20t%20%29%3Dx%28%20t%20%29)

C. [x( t )*\bigl(y( t ) + z( t )\bigr)=x( t )*y( t )+x( t )*z( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2A%5Cbigl%28y%28%20t%20%29%20%2B%20z%28%20t%20%29%5Cbigr%29%3Dx%28%20t%20%29%2Ay%28%20t%20%29%2Bx%28%20t%20%29%2Az%28%20t%20%29)

D. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

E. [x( t )*y( t )=y( t )*x( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2Ay%28%20t%20%29%3Dy%28%20t%20%29%2Ax%28%20t%20%29)

F. [x( n + T )*y( t )=x( t )*y( n + T )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%2B%20T%20%29%2Ay%28%20t%20%29%3Dx%28%20t%20%29%2Ay%28%20n%20%2B%20T%20%29)

Povratna informacija

Točan odgovor je: [x( t )*\bigl(y( t ) + z( t )\bigr)=x( t )*y( t )+x( t )*z( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2A%5Cbigl%28y%28%20t%20%29%20%2B%20z%28%20t%20%29%5Cbigr%29%3Dx%28%20t%20%29%2Ay%28%20t%20%29%2Bx%28%20t%20%29%2Az%28%20t%20%29)

**Pitanje 6**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Konvolucija [x( t ) \ast \bigl(\dirac(t+2)+\dirac(t-3)\bigr)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%20%5Cast%20%5Cbigl%28%5Cdirac%28t%2B2%29%2B%5Cdirac%28t-3%29%5Cbigr%29) je:

Odaberite jedan odgovor:

A. [\step(t-2)+\step(t+3)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cstep%28t-2%29%2B%5Cstep%28t%2B3%29)

B. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

C. [x(t-3)+x(t+2)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28t-3%29%2Bx%28t%2B2%29)

D. [x(3-t)+x(2+t)*\step( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%283-t%29%2Bx%282%2Bt%29%2A%5Cstep%28%20t%20%29)

E. [1](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=1)

F. [x( t ) \bigl(\step(t-2)+\step(t+3)\bigr)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%20%5Cbigl%28%5Cstep%28t-2%29%2B%5Cstep%28t%2B3%29%5Cbigr%29)

Povratna informacija

Točan odgovor je: [x(t-3)+x(t+2)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28t-3%29%2Bx%28t%2B2%29)

**Pitanje 7**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Konvolucija vremenski diskretnih signala konačne energije JEST distributivna operacija!

Odaberite jedan odgovor:

a. točno

b. netočno

c. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

Povratna informacija

Točan odgovor je: točno

**Pitanje 8**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Konvolucija [\bigl(x( n )+y( n ) \ast \delta( n+5 )\bigr) \ast \delta( n-2 )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cbigl%28x%28%20n%20%29%2By%28%20n%20%29%20%5Cast%20%5Cdelta%28%20n%2B5%20%29%5Cbigr%29%20%5Cast%20%5Cdelta%28%20n-2%20%29) je:

Odaberite jedan odgovor:

A. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

B. [x( n+2 )+y( n-3 )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%2B2%20%29%2By%28%20n-3%20%29)

C. [x( n )+y( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2By%28%20n%20%29)

D. [x( n-2 )+y( n+3 )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n-2%20%29%2By%28%20n%2B3%20%29)

E. [x( n+2 )+y( n+8 )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%2B2%20%29%2By%28%20n%2B8%20%29)

F. [x( n-2 ) \cdot \step( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n-2%20%29%20%5Ccdot%20%5Cstep%28%20n%20%29)

Povratna informacija

Točan odgovor je: [x( n-2 )+y( n+3 )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n-2%20%29%2By%28%20n%2B3%20%29)

**Pitanje 9**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Odziv vremenski kontinuiranog sustava [S\bigl[u( t )\bigr]=\int_{-\infty}^{t}u( \tau )\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=S%5Cbigl%5Bu%28%20t%20%29%5Cbigr%5D%3D%5Cint_%7B-%5Cinfty%7D%5E%7Bt%7Du%28%20%5Ctau%20%29%5C%2Cd%5Ctau) na Diracovu distribuciju [\dirac( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdirac%28%20t%20%29) je:

Odaberite jedan odgovor:

A. [h( t )=\step( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h%28%20t%20%29%3D%5Cstep%28%20t%20%29)

B. [h( t )=\step( -t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h%28%20t%20%29%3D%5Cstep%28%20-t%20%29)

C. [h( t )=\dirac( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h%28%20t%20%29%3D%5Cdirac%28%20t%20%29)

D. [h( t )=1](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h%28%20t%20%29%3D1)

E. [h( t )=t](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h%28%20t%20%29%3Dt)

F. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

Povratna informacija

Točan odgovor je: [h( t )=\step( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h%28%20t%20%29%3D%5Cstep%28%20t%20%29)

**Pitanje 10**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Konvolucija [(a t+b) \ast \dirac(c t-t_0)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%28a%20t%2Bb%29%20%5Cast%20%5Cdirac%28c%20t-t_0%29) ([t_0](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=t_0), [a](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=a), [b](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=b) i [c](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=c) su realne konstante, [t](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=t) je vrijeme) je:

Odaberite jedan odgovor:

A. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

B. [a(t- t_0/c)+b](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=a%28t-%20t_0%2Fc%29%2Bb)

C. [a/|c|(t- t_0/c)+b/|c|](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=a%2F%7Cc%7C%28t-%20t_0%2Fc%29%2Bb%2F%7Cc%7C)

D. Ništa od navedenoga!

E. [a (t-t_0/c)+2b  \dirac(t-t_0/c)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=a%20%28t-t_0%2Fc%29%2B2b%20%20%5Cdirac%28t-t_0%2Fc%29)

F. [at_0/c+b](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=at_0%2Fc%2Bb)

Povratna informacija

Točan odgovor je: [a/|c|(t- t_0/c)+b/|c|](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=a%2F%7Cc%7C%28t-%20t_0%2Fc%29%2Bb%2F%7Cc%7C)

Samo jedan od navedenih izraza jest definicija linearne konvolucija dva vremenski kontinuirana signala [x( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29) i [y( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y%28%20t%20%29) konačne energije. Koji?

Odaberite jedan odgovor:

A. [x( n )\ccnv{N}y( n )=\sum_{i=0}^{N-1}x(i)y(n-i \bmod{N})](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%5Cccnv%7BN%7Dy%28%20n%20%29%3D%5Csum_%7Bi%3D0%7D%5E%7BN-1%7Dx%28i%29y%28n-i%20%5Cbmod%7BN%7D%29)

B. [x( t )\ccnv{*}y( t )=\int_{0}^{T}x(\tau)y(t-\tau)\,d\tau ](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%5Cccnv%7B%2A%7Dy%28%20t%20%29%3D%5Cint_%7B0%7D%5E%7BT%7Dx%28%5Ctau%29y%28t-%5Ctau%29%5C%2Cd%5Ctau%20)

C. [x( t )*y( t )=\int_{-\infty}^{+\infty}x(\tau)y(t-\tau)\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2Ay%28%20t%20%29%3D%5Cint_%7B-%5Cinfty%7D%5E%7B%2B%5Cinfty%7Dx%28%5Ctau%29y%28t-%5Ctau%29%5C%2Cd%5Ctau)

D. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

E. [x( n )*y( n )=\sum_{i=-\infty}^{+\infty}x(i)y(n-i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2Ay%28%20n%20%29%3D%5Csum_%7Bi%3D-%5Cinfty%7D%5E%7B%2B%5Cinfty%7Dx%28i%29y%28n-i%29)

F. [x( n )\ccnv{*}y( n )=\sum_{i=0}^{N-1}x(i)y(n-i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%5Cccnv%7B%2A%7Dy%28%20n%20%29%3D%5Csum_%7Bi%3D0%7D%5E%7BN-1%7Dx%28i%29y%28n-i%29)

Povratna informacija

Točan odgovor je: [x( t )*y( t )=\int_{-\infty}^{+\infty}x(\tau)y(t-\tau)\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2Ay%28%20t%20%29%3D%5Cint_%7B-%5Cinfty%7D%5E%7B%2B%5Cinfty%7Dx%28%5Ctau%29y%28t-%5Ctau%29%5C%2Cd%5Ctau)

**Pitanje 2**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Samo jedan od navedenih izraza jest definicija periodične (kružne ili cirkularne) konvolucija dva periodična vremenski diskretna signala [x( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29) i [y( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y%28%20n%20%29) konačne snage perioda [N](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=N). Koji?

Odaberite jedan odgovor:

A. [x( n )\ccnv{N}y( n )=\sum_{i=0}^{N-1}x(i)y(n-i \bmod{N})](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%5Cccnv%7BN%7Dy%28%20n%20%29%3D%5Csum_%7Bi%3D0%7D%5E%7BN-1%7Dx%28i%29y%28n-i%20%5Cbmod%7BN%7D%29)

B. [x( n )\ccnv{*}y( n )=\sum_{i=0}^{N-1}x(i)y(n-i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%5Cccnv%7B%2A%7Dy%28%20n%20%29%3D%5Csum_%7Bi%3D0%7D%5E%7BN-1%7Dx%28i%29y%28n-i%29)

C. [x( t )\ccnv{*}y( t )=\int_{0}^{T}x(\tau)y(t-\tau)\,d\tau ](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%5Cccnv%7B%2A%7Dy%28%20t%20%29%3D%5Cint_%7B0%7D%5E%7BT%7Dx%28%5Ctau%29y%28t-%5Ctau%29%5C%2Cd%5Ctau%20)

D. [x( n )*y( n )=\sum_{i=-\infty}^{+\infty}x(i)y(n-i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2Ay%28%20n%20%29%3D%5Csum_%7Bi%3D-%5Cinfty%7D%5E%7B%2B%5Cinfty%7Dx%28i%29y%28n-i%29)

E. [x( t )*y( t )=\int_{-\infty}^{+\infty}x(\tau)y(t-\tau)\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2Ay%28%20t%20%29%3D%5Cint_%7B-%5Cinfty%7D%5E%7B%2B%5Cinfty%7Dx%28%5Ctau%29y%28t-%5Ctau%29%5C%2Cd%5Ctau)

F. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

Povratna informacija

Točan odgovor je: [x( n )\ccnv{*}y( n )=\sum_{i=0}^{N-1}x(i)y(n-i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%5Cccnv%7B%2A%7Dy%28%20n%20%29%3D%5Csum_%7Bi%3D0%7D%5E%7BN-1%7Dx%28i%29y%28n-i%29)

**Pitanje 3**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Konvolucija [(3n+2) \ast \delta( 3n-6 )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%283n%2B2%29%20%5Cast%20%5Cdelta%28%203n-6%20%29) je:

Odaberite jedan odgovor:

A. [3n-4](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=3n-4)

B. [2\delta( 3 n-6 )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=2%5Cdelta%28%203%20n-6%20%29)

C. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

D. [3n(3 n-6)+2(3 n-6)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=3n%283%20n-6%29%2B2%283%20n-6%29)

E. [3(3 n+6)+2(3 n+6)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=3%283%20n%2B6%29%2B2%283%20n%2B6%29)

F. [3n \step( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=3n%20%5Cstep%28%20n%20%29)

Povratna informacija

Točan odgovor je: [3n-4](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=3n-4)

**Pitanje 4**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Konvolucija [\dirac(t+3) \ast x(t+1) \ast \dirac(3 t-1) ](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdirac%28t%2B3%29%20%5Cast%20x%28t%2B1%29%20%5Cast%20%5Cdirac%283%20t-1%29%20) je:

Odaberite jedan odgovor:

A. [x(t+4-1/3)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28t%2B4-1%2F3%29)

B. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

C. [x(t+1) \ast \dirac(3 t-1)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28t%2B1%29%20%5Cast%20%5Cdirac%283%20t-1%29)

D. [x(t+3-1/4)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28t%2B3-1%2F4%29)

E. Ništa od navedenoga!

F. [x(t-2+1/3)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28t-2%2B1%2F3%29)

Povratna informacija

Točan odgovor je: Ništa od navedenoga!

**Pitanje 5**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Samo jedno od navedenih svojstva jest svojstvo DISTRIBUTIVNOSTI konvolucije vremenski kontinuiranih signala konačne energije! Koje? [x( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29), [y( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y%28%20t%20%29) i [z( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=z%28%20t%20%29) su vremenski kontinuirani signali dok je [T](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=T) realan broj.

Odaberite jedan odgovor:

A. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

B. [x( t )*\bigl(y( t )*z( t )\bigr)=\bigl(x( t )*y( t )\bigr)*z( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2A%5Cbigl%28y%28%20t%20%29%2Az%28%20t%20%29%5Cbigr%29%3D%5Cbigl%28x%28%20t%20%29%2Ay%28%20t%20%29%5Cbigr%29%2Az%28%20t%20%29)

C. [x( t )*y( t )=y( t )*x( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2Ay%28%20t%20%29%3Dy%28%20t%20%29%2Ax%28%20t%20%29)

D. [x( n + T )*y( t )=x( t )*y( n + T )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%2B%20T%20%29%2Ay%28%20t%20%29%3Dx%28%20t%20%29%2Ay%28%20n%20%2B%20T%20%29)

E. [x( t )*\bigl(y( t ) + z( t )\bigr)=x( t )*y( t )+x( t )*z( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2A%5Cbigl%28y%28%20t%20%29%20%2B%20z%28%20t%20%29%5Cbigr%29%3Dx%28%20t%20%29%2Ay%28%20t%20%29%2Bx%28%20t%20%29%2Az%28%20t%20%29)

F. [x( t )*\dirac( t )=\dirac( t )*x( t )=x( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2A%5Cdirac%28%20t%20%29%3D%5Cdirac%28%20t%20%29%2Ax%28%20t%20%29%3Dx%28%20t%20%29)

Povratna informacija

Točan odgovor je: [x( t )*\bigl(y( t ) + z( t )\bigr)=x( t )*y( t )+x( t )*z( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2A%5Cbigl%28y%28%20t%20%29%20%2B%20z%28%20t%20%29%5Cbigr%29%3Dx%28%20t%20%29%2Ay%28%20t%20%29%2Bx%28%20t%20%29%2Az%28%20t%20%29)

**Pitanje 6**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Konvolucija [\bigl(x( t )+y( t ) \ast \dirac(t+2t_0)\bigr) \ast \dirac(t-t_0)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cbigl%28x%28%20t%20%29%2By%28%20t%20%29%20%5Cast%20%5Cdirac%28t%2B2t_0%29%5Cbigr%29%20%5Cast%20%5Cdirac%28t-t_0%29) je:

Odaberite jedan odgovor:

A. [x(t+t_0)+y(t+3t_0)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28t%2Bt_0%29%2By%28t%2B3t_0%29)

B. [x(t-t_0)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28t-t_0%29)

C. [x(t-t_0)\step( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28t-t_0%29%5Cstep%28%20t%20%29)

D. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

E. [x(t-t_0)+y(t+t_0)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28t-t_0%29%2By%28t%2Bt_0%29)

F. [y(t-t_0)+x(t+t_0)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y%28t-t_0%29%2Bx%28t%2Bt_0%29)

Povratna informacija

Točan odgovor je: [x(t-t_0)+y(t+t_0)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28t-t_0%29%2By%28t%2Bt_0%29)

**Pitanje 7**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Konvolucija [\delta( n-1 ) \ast \bigl(\exp( n ) + \cos( n )\bigr)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdelta%28%20n-1%20%29%20%5Cast%20%5Cbigl%28%5Cexp%28%20n%20%29%20%2B%20%5Ccos%28%20n%20%29%5Cbigr%29) je:

Odaberite jedan odgovor:

A. [\delta(n-1)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdelta%28n-1%29)

B. [1](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=1)

C. [\step(n-1)\exp(n-1)+\step(n+1)\cos(n+1)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cstep%28n-1%29%5Cexp%28n-1%29%2B%5Cstep%28n%2B1%29%5Ccos%28n%2B1%29)

D. [\exp( 1-n)+\cos( 1-n) \step( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cexp%28%201-n%29%2B%5Ccos%28%201-n%29%20%5Cstep%28%20n%20%29)

E. [\exp( n-1) +\cos( n-1)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cexp%28%20n-1%29%20%2B%5Ccos%28%20n-1%29)

F. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

Povratna informacija

Točan odgovor je: [\exp( n-1) +\cos( n-1)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cexp%28%20n-1%29%20%2B%5Ccos%28%20n-1%29)

**Pitanje 8**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Neki složeni vremenski kontinuirani sustav se sastoji od paralenog spoja dvaju linearnih vremenski stalnih sustava čiji impulsni odzivi su [h_1( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h_1%28%20t%20%29) i [h_2( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h_2%28%20t%20%29). Ako na ulaz u paralelnog spoja dovedemo signal [x( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29) što ćemo dobiti na izlazu?

Odaberite jedan odgovor:

A. [h_1\bigl(x( t )\bigr)h_2( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h_1%5Cbigl%28x%28%20t%20%29%5Cbigr%29h_2%28%20t%20%29)

B. [x( t )\bigl(  h_1( t ) \ast h_2( t )\bigr)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%5Cbigl%28%20%20h_1%28%20t%20%29%20%5Cast%20h_2%28%20t%20%29%5Cbigr%29)

C. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

D. [x( t )\ast\bigl(  h_1( t ) + h_2( t )\bigr)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%5Cast%5Cbigl%28%20%20h_1%28%20t%20%29%20%2B%20h_2%28%20t%20%29%5Cbigr%29)

E. [\bigl( x( t ) \ast h_1( t )\bigr)  h_2( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cbigl%28%20x%28%20t%20%29%20%5Cast%20h_1%28%20t%20%29%5Cbigr%29%20%20h_2%28%20t%20%29)

F. [x( t )\ast h_1( t ) \ast h_2( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%5Cast%20h_1%28%20t%20%29%20%5Cast%20h_2%28%20t%20%29)

Povratna informacija

Točan odgovor je: [x( t )\ast\bigl(  h_1( t ) + h_2( t )\bigr)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%5Cast%5Cbigl%28%20%20h_1%28%20t%20%29%20%2B%20h_2%28%20t%20%29%5Cbigr%29)

**Pitanje 9**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Profesor tumači da je odziv vremenski diskretnog, linearnog, vremenski stalnog i mirnog sustava na Kroneckerov niz [\dirac( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdirac%28%20n%20%29) impulsni odziv sustava. Smatrate da je to:

Odaberite jedan odgovor:

a. točno

b. netočno

c. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

Povratna informacija

Točan odgovor je: točno

**Pitanje 10**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Promatramo li konvolucije vremenski diskretnih signala koji nemaju konačnu energiju tada svojstvo asocijativnosti konvolucije NE vrijedi!

Odaberite jedan odgovor:

a. točno

b. netočno

c. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

Povratna informacija

Točan odgovor je: točno

Za koji od navedenih vremenski diskretnih signala [y( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y%28%20n%20%29) vrijedi [x( n ) \ast y( n )=x( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%20%5Cast%20y%28%20n%20%29%3Dx%28%20n%20%29)?

Odaberite jedan odgovor:

A. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

B. [\step( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cstep%28%20n%20%29)

C. [x( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29)

D. [1](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=1)

E. [\delta( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdelta%28%20n%20%29)

F. [\step( n ) - \step(n-2)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cstep%28%20n%20%29%20-%20%5Cstep%28n-2%29)

Povratna informacija

Točan odgovor je: [\delta( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdelta%28%20n%20%29)

**Pitanje 2**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Odziv vremenski diskretnog sustava

[S\bigl[u( n )\bigr]=\sum_{i=n}^{0}u( i )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=S%5Cbigl%5Bu%28%20n%20%29%5Cbigr%5D%3D%5Csum_%7Bi%3Dn%7D%5E%7B0%7Du%28%20i%20%29) na Kroneckerov impuls [\delta( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdelta%28%20n%20%29) je:

Odaberite jedan odgovor:

A. [h( n )=\step( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h%28%20n%20%29%3D%5Cstep%28%20n%20%29)

B. [h( n )=\step( -n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h%28%20n%20%29%3D%5Cstep%28%20-n%20%29)

C. [h( n )=({1\over 2})^n\step( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h%28%20n%20%29%3D%28%7B1%5Cover%202%7D%29%5En%5Cstep%28%20n%20%29)

D. [h( n )=1](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h%28%20n%20%29%3D1)

E. [h( n )=n](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h%28%20n%20%29%3Dn)

F. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

Povratna informacija

Točan odgovor je: [h( n )=\step( -n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h%28%20n%20%29%3D%5Cstep%28%20-n%20%29)

**Pitanje 3**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Promatramo li konvolucije vremenski diskretnih signala koji nemaju konačnu energiju tada svojstvo asocijativnosti konvolucije NE vrijedi!

Odaberite jedan odgovor:

a. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

b. netočno

c. točno

Povratna informacija

Točan odgovor je: točno

**Pitanje 4**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Samo jedan od navedenih izraza jest definicija linearne konvolucija dva vremenski diskretna signala [x( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29) i [y( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y%28%20n%20%29) konačne energije. Koji?

Odaberite jedan odgovor:

A. [x( t )\ccnv{*}y( t )=\int_{0}^{T}x(\tau)y(t-\tau)\,d\tau ](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%5Cccnv%7B%2A%7Dy%28%20t%20%29%3D%5Cint_%7B0%7D%5E%7BT%7Dx%28%5Ctau%29y%28t-%5Ctau%29%5C%2Cd%5Ctau%20)

B. [x( t )*y( t )=\int_{-\infty}^{+\infty}x(\tau)y(t-\tau)\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2Ay%28%20t%20%29%3D%5Cint_%7B-%5Cinfty%7D%5E%7B%2B%5Cinfty%7Dx%28%5Ctau%29y%28t-%5Ctau%29%5C%2Cd%5Ctau)

C. [x( n )\ccnv{N}y( n )=\sum_{i=0}^{N-1}x(i)y(n-i \bmod{N})](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%5Cccnv%7BN%7Dy%28%20n%20%29%3D%5Csum_%7Bi%3D0%7D%5E%7BN-1%7Dx%28i%29y%28n-i%20%5Cbmod%7BN%7D%29)

D. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

E. [x( n )\ccnv{*}y( n )=\sum_{i=0}^{N-1}x(i)y(n-i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%5Cccnv%7B%2A%7Dy%28%20n%20%29%3D%5Csum_%7Bi%3D0%7D%5E%7BN-1%7Dx%28i%29y%28n-i%29)

F. [x( n )*y( n )=\sum_{i=-\infty}^{+\infty}x(i)y(n-i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2Ay%28%20n%20%29%3D%5Csum_%7Bi%3D-%5Cinfty%7D%5E%7B%2B%5Cinfty%7Dx%28i%29y%28n-i%29)

Povratna informacija

Točan odgovor je: [x( n )*y( n )=\sum_{i=-\infty}^{+\infty}x(i)y(n-i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2Ay%28%20n%20%29%3D%5Csum_%7Bi%3D-%5Cinfty%7D%5E%7B%2B%5Cinfty%7Dx%28i%29y%28n-i%29)

**Pitanje 5**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Konvolucija [\dirac(t+3) \ast x(t+1) \ast \dirac(3 t-1) ](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdirac%28t%2B3%29%20%5Cast%20x%28t%2B1%29%20%5Cast%20%5Cdirac%283%20t-1%29%20) je:

Odaberite jedan odgovor:

A. [x(t+4-1/3)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28t%2B4-1%2F3%29)

B. Ništa od navedenoga!

C. [x(t-2+1/3)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28t-2%2B1%2F3%29)

D. [x(t+1) \ast \dirac(3 t-1)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28t%2B1%29%20%5Cast%20%5Cdirac%283%20t-1%29)

E. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

F. [x(t+3-1/4)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28t%2B3-1%2F4%29)

Povratna informacija

Točan odgovor je: Ništa od navedenoga!

**Pitanje 6**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Periodična (cirkularna ili kruža) konvolucija dva vremenski kontinuirana signala [x( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29) i [y( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y%28%20t%20%29) konačne snage i perioda [T](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=T) je definirana izrazom:

Odaberite jedan odgovor:

A. [x( t )\ccnv{*}y( t )=\int_{0}^{T}x(\tau)y(t+\tau)\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%5Cccnv%7B%2A%7Dy%28%20t%20%29%3D%5Cint_%7B0%7D%5E%7BT%7Dx%28%5Ctau%29y%28t%2B%5Ctau%29%5C%2Cd%5Ctau)

B. [x( t )\ccnv{*}y( t )=\int_{-\infty}^{+\infty}x(\tau)y(t+\tau)\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%5Cccnv%7B%2A%7Dy%28%20t%20%29%3D%5Cint_%7B-%5Cinfty%7D%5E%7B%2B%5Cinfty%7Dx%28%5Ctau%29y%28t%2B%5Ctau%29%5C%2Cd%5Ctau)

C. [x( t )\ccnv{*}y( t )=\int_{0}^{t}x(\tau)y(t+\tau)\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%5Cccnv%7B%2A%7Dy%28%20t%20%29%3D%5Cint_%7B0%7D%5E%7Bt%7Dx%28%5Ctau%29y%28t%2B%5Ctau%29%5C%2Cd%5Ctau)

D. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

E. [x( t )\ccnv{*}y( t )=\int_{0}^{T}x(\tau)y(t-\tau)\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%5Cccnv%7B%2A%7Dy%28%20t%20%29%3D%5Cint_%7B0%7D%5E%7BT%7Dx%28%5Ctau%29y%28t-%5Ctau%29%5C%2Cd%5Ctau)

F. [x( t )\ccnv{*}y( t )=\int_{-\infty}^{+\infty}x(\tau)y(t-\tau)\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%5Cccnv%7B%2A%7Dy%28%20t%20%29%3D%5Cint_%7B-%5Cinfty%7D%5E%7B%2B%5Cinfty%7Dx%28%5Ctau%29y%28t-%5Ctau%29%5C%2Cd%5Ctau)

Povratna informacija

Točan odgovor je: [x( t )\ccnv{*}y( t )=\int_{0}^{T}x(\tau)y(t-\tau)\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%5Cccnv%7B%2A%7Dy%28%20t%20%29%3D%5Cint_%7B0%7D%5E%7BT%7Dx%28%5Ctau%29y%28t-%5Ctau%29%5C%2Cd%5Ctau)

**Pitanje 7**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Konvolucija [\bigl(\step( t )\dirac(t-t_0)\dirac(t+t_0)+1\bigr) \ast \dirac(t+t_0)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cbigl%28%5Cstep%28%20t%20%29%5Cdirac%28t-t_0%29%5Cdirac%28t%2Bt_0%29%2B1%5Cbigr%29%20%5Cast%20%5Cdirac%28t%2Bt_0%29) je:

Odaberite jedan odgovor:

A. [1](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=1)

B. [\step(t+t_0)+1](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cstep%28t%2Bt_0%29%2B1)

C. [\dirac(t+t_0)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdirac%28t%2Bt_0%29)

D. [\step(t+t_0)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cstep%28t%2Bt_0%29)

E. [\dirac(t+t_0)+1](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdirac%28t%2Bt_0%29%2B1)

F. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

Povratna informacija

Točan odgovor je: [1](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=1)

**Pitanje 8**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Impulsni odziv vremenski kontinuiranog linearn vremenski stalnog sustava je odziv mirnog sustava na:

Odaberite jedan odgovor:

A. jedinični skok [\step(t)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cstep%28t%29)

B. jediničnu rampu [r(t)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=r%28t%29)

C. harmonijsku pobudu [\sin(\omega_0 t)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Csin%28%5Comega_0%20t%29)

D. Diracovu distribuciju [\delta(t)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdelta%28t%29)

E. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

F. harmonijsku pobudu [\cos(\omega_0 t)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Ccos%28%5Comega_0%20t%29)

Povratna informacija

Točan odgovor je: Diracovu distribuciju [\delta(t)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdelta%28t%29)

**Pitanje 9**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Konvolucijom dva vremenski diskretna jedinična skoka [\step( n ) \ast \step( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cstep%28%20n%20%29%20%5Cast%20%5Cstep%28%20n%20%29) dobivamo:

Odaberite jedan odgovor:

A. [\delta( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdelta%28%20n%20%29)

B. [n\step( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=n%5Cstep%28%20n%20%29)

C. [\step( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cstep%28%20n%20%29)

D. [(n+1)\step( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%28n%2B1%29%5Cstep%28%20n%20%29)

E. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

F. [1](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=1)

Povratna informacija

Točan odgovor je: [(n+1)\step( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%28n%2B1%29%5Cstep%28%20n%20%29)

**Pitanje 10**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Samo jedno od navedenih svojstva jest svojstvo DISTRIBUTIVNOSTI konvolucije vremenski kontinuiranih signala konačne energije! Koje? [x( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29), [y( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y%28%20t%20%29) i [z( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=z%28%20t%20%29) su vremenski kontinuirani signali dok je [T](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=T) realan broj.

Odaberite jedan odgovor:

A. [x( t )*\bigl(y( t ) + z( t )\bigr)=x( t )*y( t )+x( t )*z( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2A%5Cbigl%28y%28%20t%20%29%20%2B%20z%28%20t%20%29%5Cbigr%29%3Dx%28%20t%20%29%2Ay%28%20t%20%29%2Bx%28%20t%20%29%2Az%28%20t%20%29)

B. [x( t )*y( t )=y( t )*x( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2Ay%28%20t%20%29%3Dy%28%20t%20%29%2Ax%28%20t%20%29)

C. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

D. [x( t )*\dirac( t )=\dirac( t )*x( t )=x( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2A%5Cdirac%28%20t%20%29%3D%5Cdirac%28%20t%20%29%2Ax%28%20t%20%29%3Dx%28%20t%20%29)

E. [x( n + T )*y( t )=x( t )*y( n + T )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%2B%20T%20%29%2Ay%28%20t%20%29%3Dx%28%20t%20%29%2Ay%28%20n%20%2B%20T%20%29)

F. [x( t )*\bigl(y( t )*z( t )\bigr)=\bigl(x( t )*y( t )\bigr)*z( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2A%5Cbigl%28y%28%20t%20%29%2Az%28%20t%20%29%5Cbigr%29%3D%5Cbigl%28x%28%20t%20%29%2Ay%28%20t%20%29%5Cbigr%29%2Az%28%20t%20%29)

Povratna informacija

Točan odgovor je: [x( t )*\bigl(y( t ) + z( t )\bigr)=x( t )*y( t )+x( t )*z( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2A%5Cbigl%28y%28%20t%20%29%20%2B%20z%28%20t%20%29%5Cbigr%29%3Dx%28%20t%20%29%2Ay%28%20t%20%29%2Bx%28%20t%20%29%2Az%28%20t%20%29)

Odziv vremenski kontinuiranog sustava [S\bigl[u( t )\bigr]=\int_{t}^{+\infty}u( \tau )\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=S%5Cbigl%5Bu%28%20t%20%29%5Cbigr%5D%3D%5Cint_%7Bt%7D%5E%7B%2B%5Cinfty%7Du%28%20%5Ctau%20%29%5C%2Cd%5Ctau) na Diracovu distribuciju [\dirac( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdirac%28%20t%20%29) je:

Odaberite jedan odgovor:

A. [h( t )=\step( -t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h%28%20t%20%29%3D%5Cstep%28%20-t%20%29)

B. [h( t )=\step( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h%28%20t%20%29%3D%5Cstep%28%20t%20%29)

C. [h( t )=\dirac( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h%28%20t%20%29%3D%5Cdirac%28%20t%20%29)

D. [h( t )=1](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h%28%20t%20%29%3D1)

E. [h( t )=t](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h%28%20t%20%29%3Dt)

F. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

Povratna informacija

Točan odgovor je: [h( t )=\step( -t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h%28%20t%20%29%3D%5Cstep%28%20-t%20%29)

**Pitanje 2**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Konvolucija [(a t+b) \ast \dirac(c t-t_0)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%28a%20t%2Bb%29%20%5Cast%20%5Cdirac%28c%20t-t_0%29) ([t_0](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=t_0), [a](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=a), [b](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=b) i [c](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=c) su realne konstante, [t](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=t) je vrijeme) je:

Odaberite jedan odgovor:

A. [a (t-t_0/c)+2b  \dirac(t-t_0/c)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=a%20%28t-t_0%2Fc%29%2B2b%20%20%5Cdirac%28t-t_0%2Fc%29)

B. [a/|c|(t- t_0/c)+b/|c|](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=a%2F%7Cc%7C%28t-%20t_0%2Fc%29%2Bb%2F%7Cc%7C)

C. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

D. [a(t- t_0/c)+b](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=a%28t-%20t_0%2Fc%29%2Bb)

E. [at_0/c+b](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=at_0%2Fc%2Bb)

F. Ništa od navedenoga!

Povratna informacija

Točan odgovor je: [a/|c|(t- t_0/c)+b/|c|](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=a%2F%7Cc%7C%28t-%20t_0%2Fc%29%2Bb%2F%7Cc%7C)

**Pitanje 3**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Samo jedna od navedenih tvrdnji o konvoluciji vremenski kontinuiranih signala konačne enerijge je ispravna! Koja?

Odaberite jedan odgovor:

A. Konvolucija signala s jediničnim skokom [\step(t)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cstep%28t%29) ne mijenja signal.

B. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

C. Za konvolucijski integral NE vrijedi asocijativnost.

D. Konvolucija signala s rampom [r(t)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=r%28t%29) ne mijenja signal.

E. Konvolucija signala s Diracovom distribucijom [\dirac(t)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdirac%28t%29) ne mijenja signal.

F. Za konvolucijski integral NE vrijedi komutativnost.

Povratna informacija

Točan odgovor je: Konvolucija signala s Diracovom distribucijom [\dirac(t)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdirac%28t%29) ne mijenja signal.

**Pitanje 4**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Linearna konvolucija dva vremenski kontinuirana signala [x( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29) i [y( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y%28%20t%20%29) konačne energije je definirana izrazom:

Odaberite jedan odgovor:

A. [x( t )*y( t )=\int_{0}^{t}x(\tau)y(t+\tau)\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2Ay%28%20t%20%29%3D%5Cint_%7B0%7D%5E%7Bt%7Dx%28%5Ctau%29y%28t%2B%5Ctau%29%5C%2Cd%5Ctau)

B. [x( t )*y( t )=\int_{-\infty}^{+\infty}x(\tau)y(t+\tau)\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2Ay%28%20t%20%29%3D%5Cint_%7B-%5Cinfty%7D%5E%7B%2B%5Cinfty%7Dx%28%5Ctau%29y%28t%2B%5Ctau%29%5C%2Cd%5Ctau)

C. [x( t )*y( t )=\int_{0}^{T}x(\tau)y(t+\tau)\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2Ay%28%20t%20%29%3D%5Cint_%7B0%7D%5E%7BT%7Dx%28%5Ctau%29y%28t%2B%5Ctau%29%5C%2Cd%5Ctau)

D. [x( t )*y( t )=\int_{0}^{T}x(\tau)y(t-\tau)\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2Ay%28%20t%20%29%3D%5Cint_%7B0%7D%5E%7BT%7Dx%28%5Ctau%29y%28t-%5Ctau%29%5C%2Cd%5Ctau)

E. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

F. [x( t )*y( t )=\int_{-\infty}^{+\infty}x(\tau)y(t-\tau)\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2Ay%28%20t%20%29%3D%5Cint_%7B-%5Cinfty%7D%5E%7B%2B%5Cinfty%7Dx%28%5Ctau%29y%28t-%5Ctau%29%5C%2Cd%5Ctau)

Povratna informacija

Točan odgovor je: [x( t )*y( t )=\int_{-\infty}^{+\infty}x(\tau)y(t-\tau)\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2Ay%28%20t%20%29%3D%5Cint_%7B-%5Cinfty%7D%5E%7B%2B%5Cinfty%7Dx%28%5Ctau%29y%28t-%5Ctau%29%5C%2Cd%5Ctau)

**Pitanje 5**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Da bi konvolucija [x( n )\ast y( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%5Cast%20y%28%20n%20%29) bila jednaka [x( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29) s kašnjenjem od [m](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=m) koraka tada [y( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y%28%20n%20%29) mora biti:

Odaberite jedan odgovor:

A. [\step( n-m )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cstep%28%20n-m%20%29)

B. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

C. [\delta( n+m )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdelta%28%20n%2Bm%20%29)

D. [x( n-m )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n-m%20%29)

E. [\step( n+m )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cstep%28%20n%2Bm%20%29)

F. [\delta( n-m )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdelta%28%20n-m%20%29)

Povratna informacija

Točan odgovor je: [\delta( n-m )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdelta%28%20n-m%20%29)

**Pitanje 6**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Konvolucija [x( t ) \ast \bigl(\dirac(t+2)+\dirac(t-3)\bigr)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%20%5Cast%20%5Cbigl%28%5Cdirac%28t%2B2%29%2B%5Cdirac%28t-3%29%5Cbigr%29) je:

Odaberite jedan odgovor:

A. [x( t ) \bigl(\step(t-2)+\step(t+3)\bigr)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%20%5Cbigl%28%5Cstep%28t-2%29%2B%5Cstep%28t%2B3%29%5Cbigr%29)

B. [\step(t-2)+\step(t+3)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cstep%28t-2%29%2B%5Cstep%28t%2B3%29)

C. [x(3-t)+x(2+t)*\step( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%283-t%29%2Bx%282%2Bt%29%2A%5Cstep%28%20t%20%29)

D. [x(t-3)+x(t+2)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28t-3%29%2Bx%28t%2B2%29)

E. [1](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=1)

F. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

Povratna informacija

Točan odgovor je: [x(t-3)+x(t+2)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28t-3%29%2Bx%28t%2B2%29)

**Pitanje 7**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Neki složeni vremenski diskretni sustav se sastoji od kaskade dvaju linearnih vremenski stalnih sustava čiji impulsni odzivi su [h_1( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h_1%28%20n%20%29) i [h_2( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h_2%28%20n%20%29). Ako na ulaz u kaskadu dovedemo signal [x( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29) što ćemo dobiti na izlazu?

Odaberite jedan odgovor:

A. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

B. [x( n )\bigl(  h_1( n ) \ast h_2( n )\bigr)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%5Cbigl%28%20%20h_1%28%20n%20%29%20%5Cast%20h_2%28%20n%20%29%5Cbigr%29)

C. [h_1\bigl(x( n )\bigr)h_2( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h_1%5Cbigl%28x%28%20n%20%29%5Cbigr%29h_2%28%20n%20%29)

D. [x( n )\ast h_1( n ) \ast h_2( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%5Cast%20h_1%28%20n%20%29%20%5Cast%20h_2%28%20n%20%29)

E. [\bigl( x( n ) \ast h_1( n )\bigr)  h_2( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cbigl%28%20x%28%20n%20%29%20%5Cast%20h_1%28%20n%20%29%5Cbigr%29%20%20h_2%28%20n%20%29)

F. Ovisi o poretku sustava čiji su impulsni odzivi [h_1( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h_1%28%20n%20%29) i [h_2( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h_2%28%20n%20%29)!

Povratna informacija

Točan odgovor je: [x( n )\ast h_1( n ) \ast h_2( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%5Cast%20h_1%28%20n%20%29%20%5Cast%20h_2%28%20n%20%29)

**Pitanje 8**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Linearna konvolucija dva vremenski diskretna signala [x( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29) i [y( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y%28%20n%20%29) konačne energije je definirana izrazom:

Odaberite jedan odgovor:

A. [x( n )*y( n )=\sum_{i=0}^{N-1}x(i)y(n-i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2Ay%28%20n%20%29%3D%5Csum_%7Bi%3D0%7D%5E%7BN-1%7Dx%28i%29y%28n-i%29)

B. [x( n )*y( n )=\sum_{i=-\infty}^{+\infty}x(i)y(n-i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2Ay%28%20n%20%29%3D%5Csum_%7Bi%3D-%5Cinfty%7D%5E%7B%2B%5Cinfty%7Dx%28i%29y%28n-i%29)

C. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

D. [x( n )*y( n )=\sum_{i=0}^{N-1}x(i)y(n-i \bmod{N})](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2Ay%28%20n%20%29%3D%5Csum_%7Bi%3D0%7D%5E%7BN-1%7Dx%28i%29y%28n-i%20%5Cbmod%7BN%7D%29)

E. [x( n )*y( n )=\sum_{i=0}^{N-1}x(i)y(n+i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2Ay%28%20n%20%29%3D%5Csum_%7Bi%3D0%7D%5E%7BN-1%7Dx%28i%29y%28n%2Bi%29)

F. [x( n )*y( n )=\sum_{i=-\infty}^{+\infty}x(i)y(n+i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2Ay%28%20n%20%29%3D%5Csum_%7Bi%3D-%5Cinfty%7D%5E%7B%2B%5Cinfty%7Dx%28i%29y%28n%2Bi%29)

Povratna informacija

Točan odgovor je: [x( n )*y( n )=\sum_{i=-\infty}^{+\infty}x(i)y(n-i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2Ay%28%20n%20%29%3D%5Csum_%7Bi%3D-%5Cinfty%7D%5E%7B%2B%5Cinfty%7Dx%28i%29y%28n-i%29)

**Pitanje 9**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Promatramo li konvolucije vremenski diskretnih signala koji nemaju konačnu energiju tada svojstvo asocijativnosti konvolucije NE vrijedi!

Odaberite jedan odgovor:

a. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

b. točno

c. netočno

Povratna informacija

Točan odgovor je: točno

**Pitanje 10**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Neka je vremenski diskretni signal [f( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=f%28%20n%20%29) jednak konvoluciji signala [x( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29) i [y( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y%28%20n%20%29), odnosno neka vrijedi [f( n )=x( n ) \ast y( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=f%28%20n%20%29%3Dx%28%20n%20%29%20%5Cast%20y%28%20n%20%29). Čemu je jednak izraz [x( n+1 ) \ast y( n+1 )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%2B1%20%29%20%5Cast%20y%28%20n%2B1%20%29)?

Odaberite jedan odgovor:

A. [f( n+1 )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=f%28%20n%2B1%20%29)

B. [f( n-1 )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=f%28%20n-1%20%29)

C. [f( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=f%28%20n%20%29)

D. [f( n+2 )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=f%28%20n%2B2%20%29)

E. [f( n-2 )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=f%28%20n-2%20%29)

F. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

Povratna informacija

Točan odgovor je: [f( n+2 )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=f%28%20n%2B2%20%29)

**Pitanje 1**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Za koji od navedenih vremenski diskretnih signala [y( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y%28%20n%20%29) vrijedi [x( n ) \ast y( n )=x( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%20%5Cast%20y%28%20n%20%29%3Dx%28%20n%20%29)?

Odaberite jedan odgovor:

A. [x( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29)

B. [\delta( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdelta%28%20n%20%29)

C. [1](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=1)

D. [\step( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cstep%28%20n%20%29)

E. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

F. [\step( n ) - \step(n-2)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cstep%28%20n%20%29%20-%20%5Cstep%28n-2%29)

Povratna informacija

Točan odgovor je: [\delta( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdelta%28%20n%20%29)

**Pitanje 2**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Neki složeni vremenski diskretni sustav se sastoji od kaskade dvaju linearnih vremenski stalnih sustava čiji impulsni odzivi su [h_1( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h_1%28%20n%20%29) i [h_2( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h_2%28%20n%20%29). Ako na ulaz u kaskadu dovedemo signal [x( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29) što ćemo dobiti na izlazu?

Odaberite jedan odgovor:

A. [x( n )\ast h_1( n ) \ast h_2( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%5Cast%20h_1%28%20n%20%29%20%5Cast%20h_2%28%20n%20%29)

B. [h_1\bigl(x( n )\bigr)h_2( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h_1%5Cbigl%28x%28%20n%20%29%5Cbigr%29h_2%28%20n%20%29)

C. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

D. Ovisi o poretku sustava čiji su impulsni odzivi [h_1( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h_1%28%20n%20%29) i [h_2( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h_2%28%20n%20%29)!

E. [x( n )\bigl(  h_1( n ) \ast h_2( n )\bigr)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%5Cbigl%28%20%20h_1%28%20n%20%29%20%5Cast%20h_2%28%20n%20%29%5Cbigr%29)

F. [\bigl( x( n ) \ast h_1( n )\bigr)  h_2( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cbigl%28%20x%28%20n%20%29%20%5Cast%20h_1%28%20n%20%29%5Cbigr%29%20%20h_2%28%20n%20%29)

Povratna informacija

Točan odgovor je: [x( n )\ast h_1( n ) \ast h_2( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%5Cast%20h_1%28%20n%20%29%20%5Cast%20h_2%28%20n%20%29)

**Pitanje 3**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Konvolucija [\bigl(\sin( n ) \ast \delta( n+1)\bigr)\delta( n-2)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cbigl%28%5Csin%28%20n%20%29%20%5Cast%20%5Cdelta%28%20n%2B1%29%5Cbigr%29%5Cdelta%28%20n-2%29) je:

Odaberite jedan odgovor:

A. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

B. [\sin(3)\delta( n-2)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Csin%283%29%5Cdelta%28%20n-2%29)

C. [\sin ( n+1)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Csin%20%28%20n%2B1%29)

D. [\sin( n )\ast\delta( n-1)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Csin%28%20n%20%29%5Cast%5Cdelta%28%20n-1%29)

E. [\sin( n-1)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Csin%28%20n-1%29)

F. [\sin( n )\ast\delta(n+1)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Csin%28%20n%20%29%5Cast%5Cdelta%28n%2B1%29)

Povratna informacija

Točan odgovor je: [\sin(3)\delta( n-2)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Csin%283%29%5Cdelta%28%20n-2%29)

**Pitanje 4**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Konvolucija [\dirac(t-2) \ast \bigl(\exp( t ) + \cos( t )\bigr)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdirac%28t-2%29%20%5Cast%20%5Cbigl%28%5Cexp%28%20t%20%29%20%2B%20%5Ccos%28%20t%20%29%5Cbigr%29) je:

Odaberite jedan odgovor:

A. [\dirac(t-2)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdirac%28t-2%29)

B. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

C. [\exp(t-2)+\cos(t-2)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cexp%28t-2%29%2B%5Ccos%28t-2%29)

D. [\step(t-2)\exp(t-2)+\step(t+2)\cos(t+2)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cstep%28t-2%29%5Cexp%28t-2%29%2B%5Cstep%28t%2B2%29%5Ccos%28t%2B2%29)

E. [\exp(2-t)+\cos(2-t) ](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cexp%282-t%29%2B%5Ccos%282-t%29%20)

F. [1](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=1)

Povratna informacija

Točan odgovor je: [\exp(t-2)+\cos(t-2)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cexp%28t-2%29%2B%5Ccos%28t-2%29)

**Pitanje 5**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Konvolucija vremenski diskretnih signala konačne energije JEST komutativna operacija!

Odaberite jedan odgovor:

a. netočno

b. točno

c. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

Povratna informacija

Točan odgovor je: točno

**Pitanje 6**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Konvolucijom dva jedinična skoka [\step( t ) \ast \step( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cstep%28%20t%20%29%20%5Cast%20%5Cstep%28%20t%20%29) dobivamo:

Odaberite jedan odgovor:

A. [1](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=1)

B. [t  \step( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=t%20%20%5Cstep%28%20t%20%29)

C. [\step( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cstep%28%20t%20%29)

D. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

E. [\dirac( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdirac%28%20t%20%29)

F. Irski step ples

Povratna informacija

Točan odgovor je: [t  \step( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=t%20%20%5Cstep%28%20t%20%29)

**Pitanje 7**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Konvolucija vremenski kontinuiranih signala konačne energije NIJE distributivna operacija!

Odaberite jedan odgovor:

a. točno

b. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

c. netočno

Povratna informacija

Točan odgovor je: netočno

**Pitanje 8**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Odziv vremenski kontinuiranog sustava [S\bigl[u( t )\bigr]=\int_{-\infty}^{t}u( \tau )\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=S%5Cbigl%5Bu%28%20t%20%29%5Cbigr%5D%3D%5Cint_%7B-%5Cinfty%7D%5E%7Bt%7Du%28%20%5Ctau%20%29%5C%2Cd%5Ctau) na Diracovu distribuciju [\dirac( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdirac%28%20t%20%29) je:

Odaberite jedan odgovor:

A. [h( t )=\step( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h%28%20t%20%29%3D%5Cstep%28%20t%20%29)

B. [h( t )=\step( -t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h%28%20t%20%29%3D%5Cstep%28%20-t%20%29)

C. [h( t )=\dirac( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h%28%20t%20%29%3D%5Cdirac%28%20t%20%29)

D. [h( t )=1](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h%28%20t%20%29%3D1)

E. [h( t )=t](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h%28%20t%20%29%3Dt)

F. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

Povratna informacija

Točan odgovor je: [h( t )=\step( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h%28%20t%20%29%3D%5Cstep%28%20t%20%29)

**Pitanje 9**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Linearna konvolucija dva vremenski diskretna signala [x( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29) i [y( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y%28%20n%20%29) konačne energije je definirana izrazom:

Odaberite jedan odgovor:

A. [x( n )*y( n )=\sum_{i=0}^{N-1}x(i)y(n-i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2Ay%28%20n%20%29%3D%5Csum_%7Bi%3D0%7D%5E%7BN-1%7Dx%28i%29y%28n-i%29)

B. [x( n )*y( n )=\sum_{i=0}^{N-1}x(i)y(n-i \bmod{N})](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2Ay%28%20n%20%29%3D%5Csum_%7Bi%3D0%7D%5E%7BN-1%7Dx%28i%29y%28n-i%20%5Cbmod%7BN%7D%29)

C. [x( n )*y( n )=\sum_{i=-\infty}^{+\infty}x(i)y(n-i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2Ay%28%20n%20%29%3D%5Csum_%7Bi%3D-%5Cinfty%7D%5E%7B%2B%5Cinfty%7Dx%28i%29y%28n-i%29)

D. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

E. [x( n )*y( n )=\sum_{i=0}^{N-1}x(i)y(n+i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2Ay%28%20n%20%29%3D%5Csum_%7Bi%3D0%7D%5E%7BN-1%7Dx%28i%29y%28n%2Bi%29)

F. [x( n )*y( n )=\sum_{i=-\infty}^{+\infty}x(i)y(n+i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2Ay%28%20n%20%29%3D%5Csum_%7Bi%3D-%5Cinfty%7D%5E%7B%2B%5Cinfty%7Dx%28i%29y%28n%2Bi%29)

Povratna informacija

Točan odgovor je: [x( n )*y( n )=\sum_{i=-\infty}^{+\infty}x(i)y(n-i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2Ay%28%20n%20%29%3D%5Csum_%7Bi%3D-%5Cinfty%7D%5E%7B%2B%5Cinfty%7Dx%28i%29y%28n-i%29)

**Pitanje 10**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Periodična (cirkularna ili kruža) konvolucija dva vremenski kontinuirana signala [x( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29) i [y( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y%28%20t%20%29) konačne snage i perioda [T](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=T) je definirana izrazom:

Odaberite jedan odgovor:

A. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

B. [x( t )\ccnv{*}y( t )=\int_{0}^{T}x(\tau)y(t+\tau)\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%5Cccnv%7B%2A%7Dy%28%20t%20%29%3D%5Cint_%7B0%7D%5E%7BT%7Dx%28%5Ctau%29y%28t%2B%5Ctau%29%5C%2Cd%5Ctau)

C. [x( t )\ccnv{*}y( t )=\int_{-\infty}^{+\infty}x(\tau)y(t+\tau)\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%5Cccnv%7B%2A%7Dy%28%20t%20%29%3D%5Cint_%7B-%5Cinfty%7D%5E%7B%2B%5Cinfty%7Dx%28%5Ctau%29y%28t%2B%5Ctau%29%5C%2Cd%5Ctau)

D. [x( t )\ccnv{*}y( t )=\int_{0}^{T}x(\tau)y(t-\tau)\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%5Cccnv%7B%2A%7Dy%28%20t%20%29%3D%5Cint_%7B0%7D%5E%7BT%7Dx%28%5Ctau%29y%28t-%5Ctau%29%5C%2Cd%5Ctau)

E. [x( t )\ccnv{*}y( t )=\int_{0}^{t}x(\tau)y(t+\tau)\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%5Cccnv%7B%2A%7Dy%28%20t%20%29%3D%5Cint_%7B0%7D%5E%7Bt%7Dx%28%5Ctau%29y%28t%2B%5Ctau%29%5C%2Cd%5Ctau)

F. [x( t )\ccnv{*}y( t )=\int_{-\infty}^{+\infty}x(\tau)y(t-\tau)\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%5Cccnv%7B%2A%7Dy%28%20t%20%29%3D%5Cint_%7B-%5Cinfty%7D%5E%7B%2B%5Cinfty%7Dx%28%5Ctau%29y%28t-%5Ctau%29%5C%2Cd%5Ctau)

Povratna informacija

Točan odgovor je: [x( t )\ccnv{*}y( t )=\int_{0}^{T}x(\tau)y(t-\tau)\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%5Cccnv%7B%2A%7Dy%28%20t%20%29%3D%5Cint_%7B0%7D%5E%7BT%7Dx%28%5Ctau%29y%28t-%5Ctau%29%5C%2Cd%5Ctau)

Samo jedno od navedenih svojstva jest svojstvo ASOCIJATIVNOSTI konvolucije vremenski kontinuiranih signala konačne energije! Koje? [x( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29), [y( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y%28%20t%20%29) i [z( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=z%28%20t%20%29) su vremenski diskretni signali dok je [T](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=T) realan broj.

Odaberite jedan odgovor:

A. [x( n + T )*y( t )=x( t )*y( n + T )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%2B%20T%20%29%2Ay%28%20t%20%29%3Dx%28%20t%20%29%2Ay%28%20n%20%2B%20T%20%29)

B. [x( t )*y( t )=y( t )*x( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2Ay%28%20t%20%29%3Dy%28%20t%20%29%2Ax%28%20t%20%29)

C. [x( t )*\bigl(y( t ) + z( t )\bigr)=x( t )*y( t )+x( t )*z( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2A%5Cbigl%28y%28%20t%20%29%20%2B%20z%28%20t%20%29%5Cbigr%29%3Dx%28%20t%20%29%2Ay%28%20t%20%29%2Bx%28%20t%20%29%2Az%28%20t%20%29)

D. [x( t )*\dirac( t )=\dirac( t )*x( t )=x( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2A%5Cdirac%28%20t%20%29%3D%5Cdirac%28%20t%20%29%2Ax%28%20t%20%29%3Dx%28%20t%20%29)

E. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

F. [x( t )*\bigl(y( t )*z( t )\bigr)=\bigl(x( t )*y( t )\bigr)*z( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2A%5Cbigl%28y%28%20t%20%29%2Az%28%20t%20%29%5Cbigr%29%3D%5Cbigl%28x%28%20t%20%29%2Ay%28%20t%20%29%5Cbigr%29%2Az%28%20t%20%29)

Povratna informacija

Točan odgovor je: [x( t )*\bigl(y( t )*z( t )\bigr)=\bigl(x( t )*y( t )\bigr)*z( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2A%5Cbigl%28y%28%20t%20%29%2Az%28%20t%20%29%5Cbigr%29%3D%5Cbigl%28x%28%20t%20%29%2Ay%28%20t%20%29%5Cbigr%29%2Az%28%20t%20%29)

**Pitanje 2**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Konvolucija [\bigl(x( n )+y( n ) \ast \delta( n+5 )\bigr) \ast \delta( n-2 )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cbigl%28x%28%20n%20%29%2By%28%20n%20%29%20%5Cast%20%5Cdelta%28%20n%2B5%20%29%5Cbigr%29%20%5Cast%20%5Cdelta%28%20n-2%20%29) je:

Odaberite jedan odgovor:

A. [x( n-2 ) \cdot \step( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n-2%20%29%20%5Ccdot%20%5Cstep%28%20n%20%29)

B. [x( n-2 )+y( n+3 )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n-2%20%29%2By%28%20n%2B3%20%29)

C. [x( n+2 )+y( n+8 )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%2B2%20%29%2By%28%20n%2B8%20%29)

D. [x( n )+y( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2By%28%20n%20%29)

E. [x( n+2 )+y( n-3 )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%2B2%20%29%2By%28%20n-3%20%29)

F. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

Povratna informacija

Točan odgovor je: [x( n-2 )+y( n+3 )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n-2%20%29%2By%28%20n%2B3%20%29)

**Pitanje 3**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Odziv vremenski diskretnog sustava [S\bigl[u( n )\bigr]=\sum_{i=n}^{0}u( i )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=S%5Cbigl%5Bu%28%20n%20%29%5Cbigr%5D%3D%5Csum_%7Bi%3Dn%7D%5E%7B0%7Du%28%20i%20%29) na Kroneckerov impuls [\delta( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdelta%28%20n%20%29) je:

Odaberite jedan odgovor:

A. [h( n )=\step( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h%28%20n%20%29%3D%5Cstep%28%20n%20%29)

B. [h( n )=\step( -n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h%28%20n%20%29%3D%5Cstep%28%20-n%20%29)

C. [h( n )=({1\over 2})^n\step( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h%28%20n%20%29%3D%28%7B1%5Cover%202%7D%29%5En%5Cstep%28%20n%20%29)

D. [h( n )=1](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h%28%20n%20%29%3D1)

E. [h( n )=n](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h%28%20n%20%29%3Dn)

F. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

Povratna informacija

Točan odgovor je: [h( n )=\step( -n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h%28%20n%20%29%3D%5Cstep%28%20-n%20%29)

**Pitanje 4**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Konvolucija [\bigl(x( t )+y( t ) \ast \dirac(t+2t_0)\bigr) \ast \dirac(t-t_0)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cbigl%28x%28%20t%20%29%2By%28%20t%20%29%20%5Cast%20%5Cdirac%28t%2B2t_0%29%5Cbigr%29%20%5Cast%20%5Cdirac%28t-t_0%29) je:

Odaberite jedan odgovor:

A. [x(t+t_0)+y(t+3t_0)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28t%2Bt_0%29%2By%28t%2B3t_0%29)

B. [y(t-t_0)+x(t+t_0)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y%28t-t_0%29%2Bx%28t%2Bt_0%29)

C. [x(t-t_0)+y(t+t_0)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28t-t_0%29%2By%28t%2Bt_0%29)

D. [x(t-t_0)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28t-t_0%29)

E. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

F. [x(t-t_0)\step( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28t-t_0%29%5Cstep%28%20t%20%29)

Povratna informacija

Točan odgovor je: [x(t-t_0)+y(t+t_0)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28t-t_0%29%2By%28t%2Bt_0%29)

**Pitanje 5**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Periodična (cirkularna ili kruža) konvolucija dva vremenski diskretna signala [x( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29) i [y( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y%28%20n%20%29) konačne snage i perioda [N](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=N) je definirana izrazom:

Odaberite jedan odgovor:

A. [x( n )\ccnv{*}y( n )=\sum_{i=0}^{N-1}x(i)y(n+i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%5Cccnv%7B%2A%7Dy%28%20n%20%29%3D%5Csum_%7Bi%3D0%7D%5E%7BN-1%7Dx%28i%29y%28n%2Bi%29)

B. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

C. [x( n )\ccnv{*}y( n )=\sum_{i=-\infty}^{+\infty}x(i)y(n-i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%5Cccnv%7B%2A%7Dy%28%20n%20%29%3D%5Csum_%7Bi%3D-%5Cinfty%7D%5E%7B%2B%5Cinfty%7Dx%28i%29y%28n-i%29)

D. [x( n )\ccnv{*}y( n )=\sum_{i=0}^{N-1}x(i)y(n-i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%5Cccnv%7B%2A%7Dy%28%20n%20%29%3D%5Csum_%7Bi%3D0%7D%5E%7BN-1%7Dx%28i%29y%28n-i%29)

E. [x( n )\ccnv{*}y( n )=\sum_{i=0}^{n}x(i)y(n-i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%5Cccnv%7B%2A%7Dy%28%20n%20%29%3D%5Csum_%7Bi%3D0%7D%5E%7Bn%7Dx%28i%29y%28n-i%29)

F. [x( n )\ccnv{*}y( n )=\sum_{i=-\infty}^{+\infty}x(i)y(n+i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%5Cccnv%7B%2A%7Dy%28%20n%20%29%3D%5Csum_%7Bi%3D-%5Cinfty%7D%5E%7B%2B%5Cinfty%7Dx%28i%29y%28n%2Bi%29)

Povratna informacija

Točan odgovor je: [x( n )\ccnv{*}y( n )=\sum_{i=0}^{N-1}x(i)y(n-i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%5Cccnv%7B%2A%7Dy%28%20n%20%29%3D%5Csum_%7Bi%3D0%7D%5E%7BN-1%7Dx%28i%29y%28n-i%29)

**Pitanje 6**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Za koji od navedenih signala [y( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y%28%20t%20%29) vrijedi [x( t ) \ast y( t )=x(t+t_0)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%20%5Cast%20y%28%20t%20%29%3Dx%28t%2Bt_0%29)?

Odaberite jedan odgovor:

A. [\step(t-t_0)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cstep%28t-t_0%29)

B. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

C. [\dirac(t+t_0)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdirac%28t%2Bt_0%29)

D. [\step(t+t_0)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cstep%28t%2Bt_0%29)

E. [\dirac(t-t_0)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdirac%28t-t_0%29)

F. [x( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29)

Povratna informacija

Točan odgovor je: [\dirac(t+t_0)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdirac%28t%2Bt_0%29)

**Pitanje 7**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Konvolucija [\bigl(\sin( n ) \ast \delta( n+m )\bigr)\delta(n-m)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cbigl%28%5Csin%28%20n%20%29%20%5Cast%20%5Cdelta%28%20n%2Bm%20%29%5Cbigr%29%5Cdelta%28n-m%29) je:

Odaberite jedan odgovor:

A. [\sin( n )\ast\delta(n-m)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Csin%28%20n%20%29%5Cast%5Cdelta%28n-m%29)

B. [\sin(n-m)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Csin%28n-m%29)

C. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

D. [\sin(2m) \delta(n-m)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Csin%282m%29%20%5Cdelta%28n-m%29)

E. [\sin( n )\ast\delta( n+m )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Csin%28%20n%20%29%5Cast%5Cdelta%28%20n%2Bm%20%29)

F. [\sin( n+m )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Csin%28%20n%2Bm%20%29)

Povratna informacija

Točan odgovor je: [\sin(2m) \delta(n-m)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Csin%282m%29%20%5Cdelta%28n-m%29)

**Pitanje 8**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Odziv vremenski kontinuiranog sustava [S\bigl[u( t )\bigr]=\int_{-\infty}^{t}u( \tau )\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=S%5Cbigl%5Bu%28%20t%20%29%5Cbigr%5D%3D%5Cint_%7B-%5Cinfty%7D%5E%7Bt%7Du%28%20%5Ctau%20%29%5C%2Cd%5Ctau) na Diracovu distribuciju [\dirac( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdirac%28%20t%20%29) je:

Odaberite jedan odgovor:

A. [h( t )=\step( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h%28%20t%20%29%3D%5Cstep%28%20t%20%29)

B. [h( t )=\step( -t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h%28%20t%20%29%3D%5Cstep%28%20-t%20%29)

C. [h( t )=\dirac( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h%28%20t%20%29%3D%5Cdirac%28%20t%20%29)

D. [h( t )=1](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h%28%20t%20%29%3D1)

E. [h( t )=t](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h%28%20t%20%29%3Dt)

F. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

Povratna informacija

Točan odgovor je: [h( t )=\step( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h%28%20t%20%29%3D%5Cstep%28%20t%20%29)

**Pitanje 9**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Konvolucija vremenski diskretnih signala konačne energije NIJE asocijativna operacija!

Odaberite jedan odgovor:

a. točno

b. netočno

c. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

Povratna informacija

Točan odgovor je: netočno

**Pitanje 10**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Linearna konvolucija dva vremenski kontinuirana i KAUZALNA signala [x( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29) i [y( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y%28%20t%20%29) konačne energije jest za [t<0](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=t%3C0) definirana izrazom:

Odaberite jedan odgovor:

A. [x( t )*y( t )=\int_{-\infty}^{-t}x(\tau)y(t-\tau)\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2Ay%28%20t%20%29%3D%5Cint_%7B-%5Cinfty%7D%5E%7B-t%7Dx%28%5Ctau%29y%28t-%5Ctau%29%5C%2Cd%5Ctau)

B. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

C. [x( t )*y( t )=\int_{-t}^{+\infty}x(\tau)y(t-\tau)\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2Ay%28%20t%20%29%3D%5Cint_%7B-t%7D%5E%7B%2B%5Cinfty%7Dx%28%5Ctau%29y%28t-%5Ctau%29%5C%2Cd%5Ctau)

D. [x( t )*y( t )=0](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2Ay%28%20t%20%29%3D0)

E. [x( t )*y( t )=\int_{-t}^{t}x(\tau)y(t-\tau)\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2Ay%28%20t%20%29%3D%5Cint_%7B-t%7D%5E%7Bt%7Dx%28%5Ctau%29y%28t-%5Ctau%29%5C%2Cd%5Ctau)

F. [x( t )*y( t )=\int_{0}^{t}x(\tau)y(t-\tau)\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2Ay%28%20t%20%29%3D%5Cint_%7B0%7D%5E%7Bt%7Dx%28%5Ctau%29y%28t-%5Ctau%29%5C%2Cd%5Ctau)

Povratna informacija

Točan odgovor je: [x( t )*y( t )=0](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2Ay%28%20t%20%29%3D0)

Konvolucija vremenski kontinuiranih signala konačne energije JEST asocijativna operacija!

Odaberite jedan odgovor:

a. točno

b. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

c. netočno

Povratna informacija

Točan odgovor je: točno

**Pitanje 2**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Linearna konvolucija dva vremenski kontinuirana signala [x( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29) i [y( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y%28%20t%20%29) konačne energije je definirana izrazom:

Odaberite jedan odgovor:

A. [x( t )*y( t )=\int_{0}^{t}x(\tau)y(t+\tau)\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2Ay%28%20t%20%29%3D%5Cint_%7B0%7D%5E%7Bt%7Dx%28%5Ctau%29y%28t%2B%5Ctau%29%5C%2Cd%5Ctau)

B. [x( t )*y( t )=\int_{0}^{T}x(\tau)y(t+\tau)\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2Ay%28%20t%20%29%3D%5Cint_%7B0%7D%5E%7BT%7Dx%28%5Ctau%29y%28t%2B%5Ctau%29%5C%2Cd%5Ctau)

C. [x( t )*y( t )=\int_{-\infty}^{+\infty}x(\tau)y(t+\tau)\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2Ay%28%20t%20%29%3D%5Cint_%7B-%5Cinfty%7D%5E%7B%2B%5Cinfty%7Dx%28%5Ctau%29y%28t%2B%5Ctau%29%5C%2Cd%5Ctau)

D. [x( t )*y( t )=\int_{-\infty}^{+\infty}x(\tau)y(t-\tau)\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2Ay%28%20t%20%29%3D%5Cint_%7B-%5Cinfty%7D%5E%7B%2B%5Cinfty%7Dx%28%5Ctau%29y%28t-%5Ctau%29%5C%2Cd%5Ctau)

E. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

F. [x( t )*y( t )=\int_{0}^{T}x(\tau)y(t-\tau)\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2Ay%28%20t%20%29%3D%5Cint_%7B0%7D%5E%7BT%7Dx%28%5Ctau%29y%28t-%5Ctau%29%5C%2Cd%5Ctau)

Povratna informacija

Točan odgovor je: [x( t )*y( t )=\int_{-\infty}^{+\infty}x(\tau)y(t-\tau)\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2Ay%28%20t%20%29%3D%5Cint_%7B-%5Cinfty%7D%5E%7B%2B%5Cinfty%7Dx%28%5Ctau%29y%28t-%5Ctau%29%5C%2Cd%5Ctau)

**Pitanje 3**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Promatramo li konvolucije vremenski diskretnih signala koji nemaju konačnu energiju tada svojstvo asocijativnosti konvolucije NE vrijedi!

Odaberite jedan odgovor:

a. netočno

b. točno

c. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

Povratna informacija

Točan odgovor je: točno

**Pitanje 4**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Samo jedan od navedenih izraza jest definicija periodične (kružne ili cirkularne) konvolucija dva periodična vremenski diskretna signala [x( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29) i [y( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y%28%20n%20%29) konačne snage perioda [N](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=N). Koji?

Odaberite jedan odgovor:

A. [x( t )\ccnv{*}y( t )=\int_{0}^{T}x(\tau)y(t-\tau)\,d\tau ](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%5Cccnv%7B%2A%7Dy%28%20t%20%29%3D%5Cint_%7B0%7D%5E%7BT%7Dx%28%5Ctau%29y%28t-%5Ctau%29%5C%2Cd%5Ctau%20)

B. [x( t )*y( t )=\int_{-\infty}^{+\infty}x(\tau)y(t-\tau)\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2Ay%28%20t%20%29%3D%5Cint_%7B-%5Cinfty%7D%5E%7B%2B%5Cinfty%7Dx%28%5Ctau%29y%28t-%5Ctau%29%5C%2Cd%5Ctau)

C. [x( n )\ccnv{*}y( n )=\sum_{i=0}^{N-1}x(i)y(n-i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%5Cccnv%7B%2A%7Dy%28%20n%20%29%3D%5Csum_%7Bi%3D0%7D%5E%7BN-1%7Dx%28i%29y%28n-i%29)

D. [x( n )\ccnv{N}y( n )=\sum_{i=0}^{N-1}x(i)y(n-i \bmod{N})](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%5Cccnv%7BN%7Dy%28%20n%20%29%3D%5Csum_%7Bi%3D0%7D%5E%7BN-1%7Dx%28i%29y%28n-i%20%5Cbmod%7BN%7D%29)

E. [x( n )*y( n )=\sum_{i=-\infty}^{+\infty}x(i)y(n-i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2Ay%28%20n%20%29%3D%5Csum_%7Bi%3D-%5Cinfty%7D%5E%7B%2B%5Cinfty%7Dx%28i%29y%28n-i%29)

F. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

Povratna informacija

Točan odgovor je: [x( n )\ccnv{*}y( n )=\sum_{i=0}^{N-1}x(i)y(n-i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%5Cccnv%7B%2A%7Dy%28%20n%20%29%3D%5Csum_%7Bi%3D0%7D%5E%7BN-1%7Dx%28i%29y%28n-i%29)

**Pitanje 5**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

[h_1( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h_1%28%20t%20%29) i [h_2( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h_2%28%20t%20%29). Ako na ulaz u paralelnog spoja dovedemo signal [x( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29) što ćemo dobiti na izlazu?

Odaberite jedan odgovor:

A. [x( t )\bigl(  h_1( t ) \ast h_2( t )\bigr)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%5Cbigl%28%20%20h_1%28%20t%20%29%20%5Cast%20h_2%28%20t%20%29%5Cbigr%29)

B. [x( t )\ast\bigl(  h_1( t ) + h_2( t )\bigr)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%5Cast%5Cbigl%28%20%20h_1%28%20t%20%29%20%2B%20h_2%28%20t%20%29%5Cbigr%29)

C. [x( t )\ast h_1( t ) \ast h_2( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%5Cast%20h_1%28%20t%20%29%20%5Cast%20h_2%28%20t%20%29)

D. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

E. [\bigl( x( t ) \ast h_1( t )\bigr)  h_2( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cbigl%28%20x%28%20t%20%29%20%5Cast%20h_1%28%20t%20%29%5Cbigr%29%20%20h_2%28%20t%20%29)

F. [h_1\bigl(x( t )\bigr)h_2( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h_1%5Cbigl%28x%28%20t%20%29%5Cbigr%29h_2%28%20t%20%29)

Povratna informacija

Točan odgovor je: [x( t )\ast\bigl(  h_1( t ) + h_2( t )\bigr)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%5Cast%5Cbigl%28%20%20h_1%28%20t%20%29%20%2B%20h_2%28%20t%20%29%5Cbigr%29)

**Pitanje 6**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Konvolucija [\bigl(\sin( n ) \ast \delta( n+1)\bigr)\delta( n-2)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cbigl%28%5Csin%28%20n%20%29%20%5Cast%20%5Cdelta%28%20n%2B1%29%5Cbigr%29%5Cdelta%28%20n-2%29) je:

Odaberite jedan odgovor:

A. [\sin( n-1)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Csin%28%20n-1%29)

B. [\sin(3)\delta( n-2)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Csin%283%29%5Cdelta%28%20n-2%29)

C. [\sin( n )\ast\delta(n+1)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Csin%28%20n%20%29%5Cast%5Cdelta%28n%2B1%29)

D. [\sin ( n+1)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Csin%20%28%20n%2B1%29)

E. [\sin( n )\ast\delta( n-1)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Csin%28%20n%20%29%5Cast%5Cdelta%28%20n-1%29)

F. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

Povratna informacija

Točan odgovor je: [\sin(3)\delta( n-2)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Csin%283%29%5Cdelta%28%20n-2%29)

**Pitanje 7**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Da bi konvolucija [x( n )\ast y( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%5Cast%20y%28%20n%20%29) bila jednaka [x( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29) s kašnjenjem od [m](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=m) koraka tada [y( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y%28%20n%20%29) mora biti:

Odaberite jedan odgovor:

A. [\step( n+m )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cstep%28%20n%2Bm%20%29)

B. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

C. [\delta( n+m )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdelta%28%20n%2Bm%20%29)

D. [\delta( n-m )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdelta%28%20n-m%20%29)

E. [x( n-m )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n-m%20%29)

F. [\step( n-m )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cstep%28%20n-m%20%29)

Povratna informacija

Točan odgovor je: [\delta( n-m )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdelta%28%20n-m%20%29)

**Pitanje 8**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Odziv vremenski diskretnog sustava [S\bigl[u( n )\bigr]=\sum_{i=-\infty}^{n}u( i )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=S%5Cbigl%5Bu%28%20n%20%29%5Cbigr%5D%3D%5Csum_%7Bi%3D-%5Cinfty%7D%5E%7Bn%7Du%28%20i%20%29) na Kroneckerov impuls [\delta( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdelta%28%20n%20%29) je:

Odaberite jedan odgovor:

A. [h( n )=\step( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h%28%20n%20%29%3D%5Cstep%28%20n%20%29)

B. [h( n )=\step( -n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h%28%20n%20%29%3D%5Cstep%28%20-n%20%29)

C. [h( n )=({1\over 2})^n\step( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h%28%20n%20%29%3D%28%7B1%5Cover%202%7D%29%5En%5Cstep%28%20n%20%29)

D. [h( n )=1](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h%28%20n%20%29%3D1)

E. [h( n )=n](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h%28%20n%20%29%3Dn)

F. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

Povratna informacija

Točan odgovor je: [h( n )=\step( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h%28%20n%20%29%3D%5Cstep%28%20n%20%29)

**Pitanje 9**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Konvolucija [\dirac(t-2) \ast \bigl(\exp( t ) + \cos( t )\bigr)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdirac%28t-2%29%20%5Cast%20%5Cbigl%28%5Cexp%28%20t%20%29%20%2B%20%5Ccos%28%20t%20%29%5Cbigr%29) je:

Odaberite jedan odgovor:

A. [\dirac(t-2)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdirac%28t-2%29)

B. [\step(t-2)\exp(t-2)+\step(t+2)\cos(t+2)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cstep%28t-2%29%5Cexp%28t-2%29%2B%5Cstep%28t%2B2%29%5Ccos%28t%2B2%29)

C. [\exp(t-2)+\cos(t-2)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cexp%28t-2%29%2B%5Ccos%28t-2%29)

D. [\exp(2-t)+\cos(2-t) ](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cexp%282-t%29%2B%5Ccos%282-t%29%20)

E. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

F. [1](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=1)

Povratna informacija

Točan odgovor je: [\exp(t-2)+\cos(t-2)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cexp%28t-2%29%2B%5Ccos%28t-2%29)

**Pitanje 10**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Konvolucija [\bigl(\sin( t ) \ast \dirac(t+2)\bigr)\dirac(t-1)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cbigl%28%5Csin%28%20t%20%29%20%5Cast%20%5Cdirac%28t%2B2%29%5Cbigr%29%5Cdirac%28t-1%29) je:

Odaberite jedan odgovor:

A. [\sin( t )\ast\dirac(t+1)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Csin%28%20t%20%29%5Cast%5Cdirac%28t%2B1%29)

B. [\sin(t+1)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Csin%28t%2B1%29)

C. [\sin( t )\ast\dirac(t-1)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Csin%28%20t%20%29%5Cast%5Cdirac%28t-1%29)

D. [\sin(3) \dirac(t-1)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Csin%283%29%20%5Cdirac%28t-1%29)

E. [\sin(t-1)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Csin%28t-1%29)

F. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

Povratna informacija

Točan odgovor je: [\sin(3) \dirac(t-1)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Csin%283%29%20%5Cdirac%28t-1%29)

Konvolucija vremenski kontinuiranih signala konačne energije JEST asocijativna operacija!

Odaberite jedan odgovor:

a. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

b. točno

c. netočno

Povratna informacija

Točan odgovor je: točno

**Pitanje 2**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Impulsni odziv vremenski kontinuiranog linearn vremenski stalnog sustava je odziv mirnog sustava na:

Odaberite jedan odgovor:

A. harmonijsku pobudu [\sin(\omega_0 t)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Csin%28%5Comega_0%20t%29)

B. jediničnu rampu [r(t)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=r%28t%29)

C. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

D. harmonijsku pobudu [\cos(\omega_0 t)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Ccos%28%5Comega_0%20t%29)

E. Diracovu distribuciju [\delta(t)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdelta%28t%29)

F. jedinični skok [\step(t)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cstep%28t%29)

Povratna informacija

Točan odgovor je: Diracovu distribuciju [\delta(t)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdelta%28t%29)

**Pitanje 3**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Konvolucija [\delta( n-3 ) \ast x( n+1 ) \ast \delta( n+2 ) ](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdelta%28%20n-3%20%29%20%5Cast%20x%28%20n%2B1%20%29%20%5Cast%20%5Cdelta%28%20n%2B2%20%29%20) je:

Odaberite jedan odgovor:

A. [x( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29)

B. Ne znam i nije me briga!

C. [x( n+3 )\delta( n-3 )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%2B3%20%29%5Cdelta%28%20n-3%20%29)

D. [x( n-1 )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n-1%20%29)

E. [x( n+1 )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%2B1%20%29)

F. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

Povratna informacija

Točan odgovor je: [x( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29)

**Pitanje 4**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Profesor tumači da je odziv vremenski diskretnog, vremenski stalnog i mirnog sustava na jedinični skok [\step( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cstep%28%20n%20%29) impulsni odziv sustava. Smatrate da je to:

Odaberite jedan odgovor:

a. netočno

b. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

c. točno

Povratna informacija

Točan odgovor je: netočno

**Pitanje 5**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Konvolucija [\delta( n-m) \ast \bigl(\exp( n ) + \cos( n )\bigr)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdelta%28%20n-m%29%20%5Cast%20%5Cbigl%28%5Cexp%28%20n%20%29%20%2B%20%5Ccos%28%20n%20%29%5Cbigr%29) je:

Odaberite jedan odgovor:

A. [\step(n-m)\exp(n-m)+\step( n+m )\cos( n+m )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cstep%28n-m%29%5Cexp%28n-m%29%2B%5Cstep%28%20n%2Bm%20%29%5Ccos%28%20n%2Bm%20%29)

B. [\exp( n-m )+\cos( n-m )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cexp%28%20n-m%20%29%2B%5Ccos%28%20n-m%20%29)

C. [1](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=1)

D. [\exp( m-n )+\cos( m-n ) \step( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cexp%28%20m-n%20%29%2B%5Ccos%28%20m-n%20%29%20%5Cstep%28%20n%20%29)

E. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

F. [\delta(n-m)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdelta%28n-m%29)

Povratna informacija

Točan odgovor je: [\exp( n-m )+\cos( n-m )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cexp%28%20n-m%20%29%2B%5Ccos%28%20n-m%20%29)

**Pitanje 6**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Za koji od navedenih signala [y( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y%28%20t%20%29) vrijedi [x( t ) \ast y( t )=x(t+t_0)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%20%5Cast%20y%28%20t%20%29%3Dx%28t%2Bt_0%29)?

Odaberite jedan odgovor:

A. [\dirac(t+t_0)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdirac%28t%2Bt_0%29)

B. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

C. [\step(t+t_0)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cstep%28t%2Bt_0%29)

D. [x( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29)

E. [\dirac(t-t_0)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdirac%28t-t_0%29)

F. [\step(t-t_0)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cstep%28t-t_0%29)

Povratna informacija

Točan odgovor je: [\dirac(t+t_0)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdirac%28t%2Bt_0%29)

**Pitanje 7**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Linearna konvolucija dva vremenski diskretna signala [x( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29) i [y( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y%28%20n%20%29) konačne energije je definirana izrazom:

Odaberite jedan odgovor:

A. [x( n )*y( n )=\sum_{i=0}^{N-1}x(i)y(n+i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2Ay%28%20n%20%29%3D%5Csum_%7Bi%3D0%7D%5E%7BN-1%7Dx%28i%29y%28n%2Bi%29)

B. [x( n )*y( n )=\sum_{i=-\infty}^{+\infty}x(i)y(n-i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2Ay%28%20n%20%29%3D%5Csum_%7Bi%3D-%5Cinfty%7D%5E%7B%2B%5Cinfty%7Dx%28i%29y%28n-i%29)

C. [x( n )*y( n )=\sum_{i=-\infty}^{+\infty}x(i)y(n+i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2Ay%28%20n%20%29%3D%5Csum_%7Bi%3D-%5Cinfty%7D%5E%7B%2B%5Cinfty%7Dx%28i%29y%28n%2Bi%29)

D. [x( n )*y( n )=\sum_{i=0}^{N-1}x(i)y(n-i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2Ay%28%20n%20%29%3D%5Csum_%7Bi%3D0%7D%5E%7BN-1%7Dx%28i%29y%28n-i%29)

E. [x( n )*y( n )=\sum_{i=0}^{N-1}x(i)y(n-i \bmod{N})](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2Ay%28%20n%20%29%3D%5Csum_%7Bi%3D0%7D%5E%7BN-1%7Dx%28i%29y%28n-i%20%5Cbmod%7BN%7D%29)

F. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

Povratna informacija

Točan odgovor je: [x( n )*y( n )=\sum_{i=-\infty}^{+\infty}x(i)y(n-i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2Ay%28%20n%20%29%3D%5Csum_%7Bi%3D-%5Cinfty%7D%5E%7B%2B%5Cinfty%7Dx%28i%29y%28n-i%29)

**Pitanje 8**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Konvolucijom dva jedinična skoka [\step( t ) \ast \step( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cstep%28%20t%20%29%20%5Cast%20%5Cstep%28%20t%20%29) dobivamo:

Odaberite jedan odgovor:

A. [\dirac( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdirac%28%20t%20%29)

B. [\step( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cstep%28%20t%20%29)

C. [t  \step( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=t%20%20%5Cstep%28%20t%20%29)

D. Irski step ples

E. [1](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=1)

F. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

Povratna informacija

Točan odgovor je: [t  \step( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=t%20%20%5Cstep%28%20t%20%29)

**Pitanje 9**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Linearna konvolucija dva vremenski kontinuirana signala [x( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29) i [y( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y%28%20t%20%29) konačne energije je definirana izrazom:

Odaberite jedan odgovor:

A. [x( t )*y( t )=\int_{0}^{T}x(\tau)y(t-\tau)\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2Ay%28%20t%20%29%3D%5Cint_%7B0%7D%5E%7BT%7Dx%28%5Ctau%29y%28t-%5Ctau%29%5C%2Cd%5Ctau)

B. [x( t )*y( t )=\int_{-\infty}^{+\infty}x(\tau)y(t-\tau)\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2Ay%28%20t%20%29%3D%5Cint_%7B-%5Cinfty%7D%5E%7B%2B%5Cinfty%7Dx%28%5Ctau%29y%28t-%5Ctau%29%5C%2Cd%5Ctau)

C. [x( t )*y( t )=\int_{-\infty}^{+\infty}x(\tau)y(t+\tau)\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2Ay%28%20t%20%29%3D%5Cint_%7B-%5Cinfty%7D%5E%7B%2B%5Cinfty%7Dx%28%5Ctau%29y%28t%2B%5Ctau%29%5C%2Cd%5Ctau)

D. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

E. [x( t )*y( t )=\int_{0}^{T}x(\tau)y(t+\tau)\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2Ay%28%20t%20%29%3D%5Cint_%7B0%7D%5E%7BT%7Dx%28%5Ctau%29y%28t%2B%5Ctau%29%5C%2Cd%5Ctau)

F. [x( t )*y( t )=\int_{0}^{t}x(\tau)y(t+\tau)\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2Ay%28%20t%20%29%3D%5Cint_%7B0%7D%5E%7Bt%7Dx%28%5Ctau%29y%28t%2B%5Ctau%29%5C%2Cd%5Ctau)

Povratna informacija

Točan odgovor je: [x( t )*y( t )=\int_{-\infty}^{+\infty}x(\tau)y(t-\tau)\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2Ay%28%20t%20%29%3D%5Cint_%7B-%5Cinfty%7D%5E%7B%2B%5Cinfty%7Dx%28%5Ctau%29y%28t-%5Ctau%29%5C%2Cd%5Ctau)

**Pitanje 10**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Samo jedno od navedenih svojstva jest svojstvo KOMUTATIVNOSTI konvolucije vremenski diskretnih signala konačne energije! Koje? [x( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29), [y( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y%28%20n%20%29) i [z( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=z%28%20n%20%29) su vremenski diskretni signali dok je [m](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=m) cijeli broj.

Odaberite jedan odgovor:

A. [x( n )*\bigl(y( n )*z( n )\bigr)=\bigl(x( n )*y( n )\bigr)*z( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2A%5Cbigl%28y%28%20n%20%29%2Az%28%20n%20%29%5Cbigr%29%3D%5Cbigl%28x%28%20n%20%29%2Ay%28%20n%20%29%5Cbigr%29%2Az%28%20n%20%29)

B. [x( n )*\bigl(y( n ) + z( n )\bigr)=x( n )*y( n )+x( n )*z( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2A%5Cbigl%28y%28%20n%20%29%20%2B%20z%28%20n%20%29%5Cbigr%29%3Dx%28%20n%20%29%2Ay%28%20n%20%29%2Bx%28%20n%20%29%2Az%28%20n%20%29)

C. [x( n )*\delta( n )=\delta( n )*x( n )=x( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2A%5Cdelta%28%20n%20%29%3D%5Cdelta%28%20n%20%29%2Ax%28%20n%20%29%3Dx%28%20n%20%29)

D. [x( n + m )*y( n )=x( n )*y( n + m )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%2B%20m%20%29%2Ay%28%20n%20%29%3Dx%28%20n%20%29%2Ay%28%20n%20%2B%20m%20%29)

E. [x( n )*y( n )=y( n )*x( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2Ay%28%20n%20%29%3Dy%28%20n%20%29%2Ax%28%20n%20%29)

F. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

Povratna informacija

Točan odgovor je: [x( n )*y( n )=y( n )*x( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2Ay%28%20n%20%29%3Dy%28%20n%20%29%2Ax%28%20n%20%29)

Odziv vremenski diskretnog sustava [S\bigl[u( n )\bigr]=\sum_{i=n}^{+\infty}u( i )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=S%5Cbigl%5Bu%28%20n%20%29%5Cbigr%5D%3D%5Csum_%7Bi%3Dn%7D%5E%7B%2B%5Cinfty%7Du%28%20i%20%29) na Kroneckerov impuls [\delta( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdelta%28%20n%20%29) je:

Odaberite jedan odgovor:

A. [h( n )=\step( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h%28%20n%20%29%3D%5Cstep%28%20n%20%29)

B. [h( n )=\step( -n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h%28%20n%20%29%3D%5Cstep%28%20-n%20%29)

C. [h( n )=({1\over 2})^n\step( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h%28%20n%20%29%3D%28%7B1%5Cover%202%7D%29%5En%5Cstep%28%20n%20%29)

D. [h( n )=1](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h%28%20n%20%29%3D1)

E. [h( n )=n](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h%28%20n%20%29%3Dn)

F. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

Povratna informacija

Točan odgovor je: [h( n )=\step( -n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h%28%20n%20%29%3D%5Cstep%28%20-n%20%29)

**Pitanje 2**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Samo jedan od navedenih izraza jest definicija linearne konvolucija dva vremenski kontinuirana signala [x( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29) i [y( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y%28%20t%20%29) konačne energije. Koji?

Odaberite jedan odgovor:

A. [x( n )\ccnv{*}y( n )=\sum_{i=0}^{N-1}x(i)y(n-i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%5Cccnv%7B%2A%7Dy%28%20n%20%29%3D%5Csum_%7Bi%3D0%7D%5E%7BN-1%7Dx%28i%29y%28n-i%29)

B. [x( n )*y( n )=\sum_{i=-\infty}^{+\infty}x(i)y(n-i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2Ay%28%20n%20%29%3D%5Csum_%7Bi%3D-%5Cinfty%7D%5E%7B%2B%5Cinfty%7Dx%28i%29y%28n-i%29)

C. [x( t )\ccnv{*}y( t )=\int_{0}^{T}x(\tau)y(t-\tau)\,d\tau ](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%5Cccnv%7B%2A%7Dy%28%20t%20%29%3D%5Cint_%7B0%7D%5E%7BT%7Dx%28%5Ctau%29y%28t-%5Ctau%29%5C%2Cd%5Ctau%20)

D. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

E. [x( t )*y( t )=\int_{-\infty}^{+\infty}x(\tau)y(t-\tau)\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2Ay%28%20t%20%29%3D%5Cint_%7B-%5Cinfty%7D%5E%7B%2B%5Cinfty%7Dx%28%5Ctau%29y%28t-%5Ctau%29%5C%2Cd%5Ctau)

F. [x( n )\ccnv{N}y( n )=\sum_{i=0}^{N-1}x(i)y(n-i \bmod{N})](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%5Cccnv%7BN%7Dy%28%20n%20%29%3D%5Csum_%7Bi%3D0%7D%5E%7BN-1%7Dx%28i%29y%28n-i%20%5Cbmod%7BN%7D%29)

Povratna informacija

Točan odgovor je: [x( t )*y( t )=\int_{-\infty}^{+\infty}x(\tau)y(t-\tau)\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2Ay%28%20t%20%29%3D%5Cint_%7B-%5Cinfty%7D%5E%7B%2B%5Cinfty%7Dx%28%5Ctau%29y%28t-%5Ctau%29%5C%2Cd%5Ctau)

**Pitanje 3**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Impulsni odziv vremenski kontinuiranog linearn vremenski stalnog sustava je odziv mirnog sustava na:

Odaberite jedan odgovor:

A. harmonijsku pobudu [\sin(\omega_0 t)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Csin%28%5Comega_0%20t%29)

B. harmonijsku pobudu [\cos(\omega_0 t)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Ccos%28%5Comega_0%20t%29)

C. Diracovu distribuciju [\delta(t)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdelta%28t%29)

D. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

E. jediničnu rampu [r(t)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=r%28t%29)

F. jedinični skok [\step(t)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cstep%28t%29)

Povratna informacija

Točan odgovor je: Diracovu distribuciju [\delta(t)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdelta%28t%29)

**Pitanje 4**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Konvolucija [x( n ) \ast \bigl(\delta( n+3 )+\delta( n-3 )\bigr)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%20%5Cast%20%5Cbigl%28%5Cdelta%28%20n%2B3%20%29%2B%5Cdelta%28%20n-3%20%29%5Cbigr%29) je:

Odaberite jedan odgovor:

A. [x( 3-n )+x( 3+n )\step( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%203-n%20%29%2Bx%28%203%2Bn%20%29%5Cstep%28%20n%20%29)

B. [1](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=1)

C. [\step( n-3 )+\step( n+3 )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cstep%28%20n-3%20%29%2B%5Cstep%28%20n%2B3%20%29)

D. [x( n-3 )+x( n+3 )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n-3%20%29%2Bx%28%20n%2B3%20%29)

E. [x( n ) \bigl(\step( n-3 )+\step( n+3 )\bigr)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%20%5Cbigl%28%5Cstep%28%20n-3%20%29%2B%5Cstep%28%20n%2B3%20%29%5Cbigr%29)

F. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

Povratna informacija

Točan odgovor je: [x( n-3 )+x( n+3 )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n-3%20%29%2Bx%28%20n%2B3%20%29)

**Pitanje 5**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Konvolucija [\bigl(x( t )+y( t ) \ast \dirac(t+2t_0)\bigr) \ast \dirac(t-t_0)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cbigl%28x%28%20t%20%29%2By%28%20t%20%29%20%5Cast%20%5Cdirac%28t%2B2t_0%29%5Cbigr%29%20%5Cast%20%5Cdirac%28t-t_0%29) je:

Odaberite jedan odgovor:

A. [x(t+t_0)+y(t+3t_0)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28t%2Bt_0%29%2By%28t%2B3t_0%29)

B. [x(t-t_0)+y(t+t_0)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28t-t_0%29%2By%28t%2Bt_0%29)

C. [x(t-t_0)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28t-t_0%29)

D. [x(t-t_0)\step( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28t-t_0%29%5Cstep%28%20t%20%29)

E. [y(t-t_0)+x(t+t_0)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y%28t-t_0%29%2Bx%28t%2Bt_0%29)

F. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

Povratna informacija

Točan odgovor je: [x(t-t_0)+y(t+t_0)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28t-t_0%29%2By%28t%2Bt_0%29)

**Pitanje 6**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Konvolucija [x( n ) \ast \bigl(\delta( n+m )+\delta( n-m )\bigr)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%20%5Cast%20%5Cbigl%28%5Cdelta%28%20n%2Bm%20%29%2B%5Cdelta%28%20n-m%20%29%5Cbigr%29) je:

Odaberite jedan odgovor:

A. [\step( n-m )+\step( n+m )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cstep%28%20n-m%20%29%2B%5Cstep%28%20n%2Bm%20%29)

B. [1](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=1)

C. [x( n-m )+x( n+m )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n-m%20%29%2Bx%28%20n%2Bm%20%29)

D. [x( n ) \bigl(\step( n-m )+\step( n+m )\bigr)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%20%5Cbigl%28%5Cstep%28%20n-m%20%29%2B%5Cstep%28%20n%2Bm%20%29%5Cbigr%29)

E. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

F. [x( m-n )+x( m+n ) \step( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20m-n%20%29%2Bx%28%20m%2Bn%20%29%20%5Cstep%28%20n%20%29)

Povratna informacija

Točan odgovor je: [x( n-m )+x( n+m )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n-m%20%29%2Bx%28%20n%2Bm%20%29)

**Pitanje 7**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Neka je vremenski kontinuirani signal [z( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=z%28%20t%20%29) zadan kao [z( t )=x( t ) \ast y( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=z%28%20t%20%29%3Dx%28%20t%20%29%20%5Cast%20y%28%20t%20%29). Čemu je jednako [x(t-t_0) \ast y(t-t_0)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28t-t_0%29%20%5Cast%20y%28t-t_0%29)?

Odaberite jedan odgovor:

A. [z( t+t_0)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=z%28%20t%2Bt_0%29)

B. [z( t-2t_0)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=z%28%20t-2t_0%29)

C. [z( t+2t_0)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=z%28%20t%2B2t_0%29)

D. [z( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=z%28%20t%20%29)

E. [z( t-t_0)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=z%28%20t-t_0%29)

F. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

Povratna informacija

Točan odgovor je: [z( t-2t_0)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=z%28%20t-2t_0%29)

**Pitanje 8**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Samo jedno od navedenih svojstva jest svojstvo ASOCIJATIVNOSTI konvolucije vremenski kontinuiranih signala konačne energije! Koje? [x( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29), [y( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y%28%20t%20%29) i [z( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=z%28%20t%20%29) su vremenski diskretni signali dok je [T](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=T) realan broj.

Odaberite jedan odgovor:

A. [x( t )*\dirac( t )=\dirac( t )*x( t )=x( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2A%5Cdirac%28%20t%20%29%3D%5Cdirac%28%20t%20%29%2Ax%28%20t%20%29%3Dx%28%20t%20%29)

B. [x( t )*y( t )=y( t )*x( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2Ay%28%20t%20%29%3Dy%28%20t%20%29%2Ax%28%20t%20%29)

C. [x( t )*\bigl(y( t ) + z( t )\bigr)=x( t )*y( t )+x( t )*z( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2A%5Cbigl%28y%28%20t%20%29%20%2B%20z%28%20t%20%29%5Cbigr%29%3Dx%28%20t%20%29%2Ay%28%20t%20%29%2Bx%28%20t%20%29%2Az%28%20t%20%29)

D. [x( n + T )*y( t )=x( t )*y( n + T )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%2B%20T%20%29%2Ay%28%20t%20%29%3Dx%28%20t%20%29%2Ay%28%20n%20%2B%20T%20%29)

E. [x( t )*\bigl(y( t )*z( t )\bigr)=\bigl(x( t )*y( t )\bigr)*z( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2A%5Cbigl%28y%28%20t%20%29%2Az%28%20t%20%29%5Cbigr%29%3D%5Cbigl%28x%28%20t%20%29%2Ay%28%20t%20%29%5Cbigr%29%2Az%28%20t%20%29)

F. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

Povratna informacija

Točan odgovor je: [x( t )*\bigl(y( t )*z( t )\bigr)=\bigl(x( t )*y( t )\bigr)*z( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2A%5Cbigl%28y%28%20t%20%29%2Az%28%20t%20%29%5Cbigr%29%3D%5Cbigl%28x%28%20t%20%29%2Ay%28%20t%20%29%5Cbigr%29%2Az%28%20t%20%29)

**Pitanje 9**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Linearna konvolucija dva vremenski diskretna i KAUZALNA signala [x( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29) i [y( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y%28%20n%20%29) konačne energije je za [n<0](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=n%3C0) definirana izrazom:

Odaberite jedan odgovor:

A. [x( n )*y( n )=\sum_{i=0}^{n}x(i)y(n-i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2Ay%28%20n%20%29%3D%5Csum_%7Bi%3D0%7D%5E%7Bn%7Dx%28i%29y%28n-i%29)

B. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

C. [x( n )*y( n )=0](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2Ay%28%20n%20%29%3D0)

D. [x( n )*y( n )=\sum_{i=-n}^{+\infty}x(i)y(n+i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2Ay%28%20n%20%29%3D%5Csum_%7Bi%3D-n%7D%5E%7B%2B%5Cinfty%7Dx%28i%29y%28n%2Bi%29)

E. [x( n )*y( n )=\sum_{i=-\infty}^{-n}x(i)y(n-i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2Ay%28%20n%20%29%3D%5Csum_%7Bi%3D-%5Cinfty%7D%5E%7B-n%7Dx%28i%29y%28n-i%29)

F. [x( n )*y( n )=\sum_{i=-n}^{n}x(i)y(n-i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2Ay%28%20n%20%29%3D%5Csum_%7Bi%3D-n%7D%5E%7Bn%7Dx%28i%29y%28n-i%29)

Povratna informacija

Točan odgovor je: [x( n )*y( n )=0](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2Ay%28%20n%20%29%3D0)

**Pitanje 10**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Konvolucija vremenski diskretnih signala konačne energije JEST distributivna operacija!

Odaberite jedan odgovor:

a. netočno

b. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

c. točno

Povratna informacija

Točan odgovor je: točno

Kako nazivamo odziv mirnog sustava na Diracovu distribuciju [\delta(t)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdelta%28t%29)?

Odaberite jedan odgovor:

A. odziv mirnog sustava

B. odziv pobuđenog sustava

C. prisilni odziv

D. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

E. fazor

F. impulsni odziv

Povratna informacija

Točan odgovor je: impulsni odziv

**Pitanje 2**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Samo jedna od navedenih tvrdnji o konvoluciji vremenski kontinuiranih signala konačne enerijge nije točna! Koja?

Odaberite jedan odgovor:

A. Konvolucija je kumulativna.

B. Konvolucija je distributivna

C. Konvolucija je asocijativna.

D. Konvolucija signala s Diracovom distribucijom [\dirac(t)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdirac%28t%29) daje taj isti signal.

E. Konvolucija je komutativna.

F. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

Povratna informacija

Točan odgovor je: Konvolucija je kumulativna.

**Pitanje 3**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Konvolucija [(3n+2) \ast \delta( 3n-6 )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%283n%2B2%29%20%5Cast%20%5Cdelta%28%203n-6%20%29) je:

Odaberite jedan odgovor:

A. [3n \step( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=3n%20%5Cstep%28%20n%20%29)

B. [3(3 n+6)+2(3 n+6)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=3%283%20n%2B6%29%2B2%283%20n%2B6%29)

C. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

D. [2\delta( 3 n-6 )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=2%5Cdelta%28%203%20n-6%20%29)

E. [3n(3 n-6)+2(3 n-6)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=3n%283%20n-6%29%2B2%283%20n-6%29)

F. [3n-4](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=3n-4)

Povratna informacija

Točan odgovor je: [3n-4](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=3n-4)

**Pitanje 4**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Za koji od navedenih signala [y( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y%28%20t%20%29) vrijedi [x( t ) \ast y( t )=x(t+t_0)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%20%5Cast%20y%28%20t%20%29%3Dx%28t%2Bt_0%29)?

Odaberite jedan odgovor:

A. [\dirac(t-t_0)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdirac%28t-t_0%29)

B. [\dirac(t+t_0)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdirac%28t%2Bt_0%29)

C. [\step(t+t_0)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cstep%28t%2Bt_0%29)

D. [\step(t-t_0)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cstep%28t-t_0%29)

E. [x( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29)

F. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

Povratna informacija

Točan odgovor je: [\dirac(t+t_0)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdirac%28t%2Bt_0%29)

**Pitanje 5**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Konvolucija [\bigl(x( n )+y( n ) \ast \delta( n+5 )\bigr) \ast \delta( n-2 )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cbigl%28x%28%20n%20%29%2By%28%20n%20%29%20%5Cast%20%5Cdelta%28%20n%2B5%20%29%5Cbigr%29%20%5Cast%20%5Cdelta%28%20n-2%20%29) je:

Odaberite jedan odgovor:

A. [x( n-2 )+y( n+3 )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n-2%20%29%2By%28%20n%2B3%20%29)

B. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

C. [x( n+2 )+y( n+8 )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%2B2%20%29%2By%28%20n%2B8%20%29)

D. [x( n-2 ) \cdot \step( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n-2%20%29%20%5Ccdot%20%5Cstep%28%20n%20%29)

E. [x( n+2 )+y( n-3 )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%2B2%20%29%2By%28%20n-3%20%29)

F. [x( n )+y( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2By%28%20n%20%29)

Povratna informacija

Točan odgovor je: [x( n-2 )+y( n+3 )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n-2%20%29%2By%28%20n%2B3%20%29)

**Pitanje 6**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Konvolucija vremenski diskretnih signala konačne energije NIJE asocijativna operacija!

Odaberite jedan odgovor:

a. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

b. točno

c. netočno

Povratna informacija

Točan odgovor je: netočno

**Pitanje 7**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Konvolucija [\bigl(x( t )+y( t ) \ast \dirac(t+2t_0)\bigr) \ast \dirac(t-t_0)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cbigl%28x%28%20t%20%29%2By%28%20t%20%29%20%5Cast%20%5Cdirac%28t%2B2t_0%29%5Cbigr%29%20%5Cast%20%5Cdirac%28t-t_0%29) je:

Odaberite jedan odgovor:

A. [y(t-t_0)+x(t+t_0)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y%28t-t_0%29%2Bx%28t%2Bt_0%29)

B. [x(t-t_0)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28t-t_0%29)

C. [x(t-t_0)\step( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28t-t_0%29%5Cstep%28%20t%20%29)

D. [x(t-t_0)+y(t+t_0)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28t-t_0%29%2By%28t%2Bt_0%29)

E. [x(t+t_0)+y(t+3t_0)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28t%2Bt_0%29%2By%28t%2B3t_0%29)

F. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

Povratna informacija

Točan odgovor je: [x(t-t_0)+y(t+t_0)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28t-t_0%29%2By%28t%2Bt_0%29)

**Pitanje 8**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Linearna konvolucija dva vremenski diskretna i KAUZALNA signala [x( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29) i [y( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y%28%20n%20%29) konačne energije je za [n\ge0](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=n%5Cge0) definirana izrazom:

Odaberite jedan odgovor:

A. [x( n )*y( n )=0](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2Ay%28%20n%20%29%3D0)

B. [x( n )*y( n )=\sum_{i=-\infty}^{-n}x(i)y(n-i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2Ay%28%20n%20%29%3D%5Csum_%7Bi%3D-%5Cinfty%7D%5E%7B-n%7Dx%28i%29y%28n-i%29)

C. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

D. [x( n )*y( n )=\sum_{i=-n}^{n}x(i)y(n-i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2Ay%28%20n%20%29%3D%5Csum_%7Bi%3D-n%7D%5E%7Bn%7Dx%28i%29y%28n-i%29)

E. [x( n )*y( n )=\sum_{i=0}^{n}x(i)y(n-i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2Ay%28%20n%20%29%3D%5Csum_%7Bi%3D0%7D%5E%7Bn%7Dx%28i%29y%28n-i%29)

F. [x( n )*y( n )=\sum_{i=-n}^{+\infty}x(i)y(n+i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2Ay%28%20n%20%29%3D%5Csum_%7Bi%3D-n%7D%5E%7B%2B%5Cinfty%7Dx%28i%29y%28n%2Bi%29)

Povratna informacija

Točan odgovor je: [x( n )*y( n )=\sum_{i=0}^{n}x(i)y(n-i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2Ay%28%20n%20%29%3D%5Csum_%7Bi%3D0%7D%5E%7Bn%7Dx%28i%29y%28n-i%29)

**Pitanje 9**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Samo jedan od navedenih izraza jest definicija periodične (kružne ili cirkularne) konvolucija dva periodična vremenski kontinuirana signala [x( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29) i [y( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y%28%20t%20%29) konačne snage perioda [T](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=T). Koji?

Odaberite jedan odgovor:

A. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

B. [x( t )*y( t )=\int_{-\infty}^{+\infty}x(\tau)y(t-\tau)\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2Ay%28%20t%20%29%3D%5Cint_%7B-%5Cinfty%7D%5E%7B%2B%5Cinfty%7Dx%28%5Ctau%29y%28t-%5Ctau%29%5C%2Cd%5Ctau)

C. [x( t )\ccnv{*}y( t )=\int_{0}^{T}x(\tau)y(t-\tau)\,d\tau ](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%5Cccnv%7B%2A%7Dy%28%20t%20%29%3D%5Cint_%7B0%7D%5E%7BT%7Dx%28%5Ctau%29y%28t-%5Ctau%29%5C%2Cd%5Ctau%20)

D. [x( n )\ccnv{*}y( n )=\sum_{i=0}^{N-1}x(i)y(n-i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%5Cccnv%7B%2A%7Dy%28%20n%20%29%3D%5Csum_%7Bi%3D0%7D%5E%7BN-1%7Dx%28i%29y%28n-i%29)

E. [x( n )*y( n )=\sum_{i=-\infty}^{+\infty}x(i)y(n-i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2Ay%28%20n%20%29%3D%5Csum_%7Bi%3D-%5Cinfty%7D%5E%7B%2B%5Cinfty%7Dx%28i%29y%28n-i%29)

F. [x( n )\ccnv{N}y( n )=\sum_{i=0}^{N-1}x(i)y(n-i \bmod{N})](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%5Cccnv%7BN%7Dy%28%20n%20%29%3D%5Csum_%7Bi%3D0%7D%5E%7BN-1%7Dx%28i%29y%28n-i%20%5Cbmod%7BN%7D%29)

Povratna informacija

Točan odgovor je: [x( t )\ccnv{*}y( t )=\int_{0}^{T}x(\tau)y(t-\tau)\,d\tau ](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%5Cccnv%7B%2A%7Dy%28%20t%20%29%3D%5Cint_%7B0%7D%5E%7BT%7Dx%28%5Ctau%29y%28t-%5Ctau%29%5C%2Cd%5Ctau%20)

**Pitanje 10**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Odziv vremenski diskretnog sustava [S\bigl[u( n )\bigr]=\sum_{i=-\infty}^{n}u( i )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=S%5Cbigl%5Bu%28%20n%20%29%5Cbigr%5D%3D%5Csum_%7Bi%3D-%5Cinfty%7D%5E%7Bn%7Du%28%20i%20%29) na Kroneckerov impuls [\delta( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdelta%28%20n%20%29) je:

Odaberite jedan odgovor:

A. [h( n )=\step( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h%28%20n%20%29%3D%5Cstep%28%20n%20%29)

B. [h( n )=\step( -n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h%28%20n%20%29%3D%5Cstep%28%20-n%20%29)

C. [h( n )=({1\over 2})^n\step( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h%28%20n%20%29%3D%28%7B1%5Cover%202%7D%29%5En%5Cstep%28%20n%20%29)

D. [h( n )=1](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h%28%20n%20%29%3D1)

E. [h( n )=n](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h%28%20n%20%29%3Dn)

F. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

Povratna informacija

Točan odgovor je: [h( n )=\step( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h%28%20n%20%29%3D%5Cstep%28%20n%20%29)

Neka je vremenski kontinuirani signal [z( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=z%28%20t%20%29) zadan kao [z( t )=x( t ) \ast y( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=z%28%20t%20%29%3Dx%28%20t%20%29%20%5Cast%20y%28%20t%20%29). Čemu je jednako [x(t-t_0) \ast y(t-t_0)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28t-t_0%29%20%5Cast%20y%28t-t_0%29)?

Odaberite jedan odgovor:

A. [z( t+t_0)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=z%28%20t%2Bt_0%29)

B. [z( t+2t_0)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=z%28%20t%2B2t_0%29)

C. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

D. [z( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=z%28%20t%20%29)

E. [z( t-2t_0)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=z%28%20t-2t_0%29)

F. [z( t-t_0)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=z%28%20t-t_0%29)

Povratna informacija

Točan odgovor je: [z( t-2t_0)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=z%28%20t-2t_0%29)

**Pitanje 2**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Samo jedno od navedenih svojstva jest svojstvo KOMUTATIVNOSTI konvolucije vremenski diskretnih signala konačne energije! Koje? [x( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29), [y( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y%28%20n%20%29) i [z( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=z%28%20n%20%29) su vremenski diskretni signali dok je [m](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=m) cijeli broj.

Odaberite jedan odgovor:

A. [x( n )*\bigl(y( n ) + z( n )\bigr)=x( n )*y( n )+x( n )*z( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2A%5Cbigl%28y%28%20n%20%29%20%2B%20z%28%20n%20%29%5Cbigr%29%3Dx%28%20n%20%29%2Ay%28%20n%20%29%2Bx%28%20n%20%29%2Az%28%20n%20%29)

B. [x( n )*\delta( n )=\delta( n )*x( n )=x( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2A%5Cdelta%28%20n%20%29%3D%5Cdelta%28%20n%20%29%2Ax%28%20n%20%29%3Dx%28%20n%20%29)

C. [x( n + m )*y( n )=x( n )*y( n + m )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%2B%20m%20%29%2Ay%28%20n%20%29%3Dx%28%20n%20%29%2Ay%28%20n%20%2B%20m%20%29)

D. [x( n )*\bigl(y( n )*z( n )\bigr)=\bigl(x( n )*y( n )\bigr)*z( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2A%5Cbigl%28y%28%20n%20%29%2Az%28%20n%20%29%5Cbigr%29%3D%5Cbigl%28x%28%20n%20%29%2Ay%28%20n%20%29%5Cbigr%29%2Az%28%20n%20%29)

E. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

F. [x( n )*y( n )=y( n )*x( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2Ay%28%20n%20%29%3Dy%28%20n%20%29%2Ax%28%20n%20%29)

Povratna informacija

Točan odgovor je: [x( n )*y( n )=y( n )*x( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2Ay%28%20n%20%29%3Dy%28%20n%20%29%2Ax%28%20n%20%29)

**Pitanje 3**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Za koju od navedenih funkcija [y( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y%28%20n%20%29) vrijedi [x( n ) \ast y( n )=x( n+1 )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%20%5Cast%20y%28%20n%20%29%3Dx%28%20n%2B1%20%29)?

Odaberite jedan odgovor:

A. [\delta( n+1 )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdelta%28%20n%2B1%20%29)

B. [x( n+1 )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%2B1%20%29)

C. [\delta( n-1 )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdelta%28%20n-1%20%29)

D. [\step( n-1 )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cstep%28%20n-1%20%29)

E. [\step( n+1 )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cstep%28%20n%2B1%20%29)

F. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

Povratna informacija

Točan odgovor je: [\delta( n+1 )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdelta%28%20n%2B1%20%29)

**Pitanje 4**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Impulsni odziv vremenski kontinuiranog linearn vremenski stalnog sustava je odziv mirnog sustava na:

Odaberite jedan odgovor:

A. Diracovu distribuciju [\delta(t)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdelta%28t%29)

B. jediničnu rampu [r(t)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=r%28t%29)

C. jedinični skok [\step(t)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cstep%28t%29)

D. harmonijsku pobudu [\cos(\omega_0 t)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Ccos%28%5Comega_0%20t%29)

E. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

F. harmonijsku pobudu [\sin(\omega_0 t)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Csin%28%5Comega_0%20t%29)

Povratna informacija

Točan odgovor je: Diracovu distribuciju [\delta(t)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdelta%28t%29)

**Pitanje 5**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Linearna konvolucija dva vremenski kontinuirana i KAUZALNA signala [x( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29) i [y( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y%28%20t%20%29) konačne energije jest za [t\ge0](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=t%5Cge0) definirana izrazom:

Odaberite jedan odgovor:

A. [x( t )*y( t )=\int_{0}^{t}x(\tau)y(t-\tau)\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2Ay%28%20t%20%29%3D%5Cint_%7B0%7D%5E%7Bt%7Dx%28%5Ctau%29y%28t-%5Ctau%29%5C%2Cd%5Ctau)

B. [x( t )*y( t )=\int_{-t}^{+\infty}x(\tau)y(t-\tau)\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2Ay%28%20t%20%29%3D%5Cint_%7B-t%7D%5E%7B%2B%5Cinfty%7Dx%28%5Ctau%29y%28t-%5Ctau%29%5C%2Cd%5Ctau)

C. [x( t )*y( t )=0](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2Ay%28%20t%20%29%3D0)

D. [x( t )*y( t )=\int_{-\infty}^{-t}x(\tau)y(t-\tau)\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2Ay%28%20t%20%29%3D%5Cint_%7B-%5Cinfty%7D%5E%7B-t%7Dx%28%5Ctau%29y%28t-%5Ctau%29%5C%2Cd%5Ctau)

E. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

F. [x( t )*y( t )=\int_{-t}^{t}x(\tau)y(t-\tau)\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2Ay%28%20t%20%29%3D%5Cint_%7B-t%7D%5E%7Bt%7Dx%28%5Ctau%29y%28t-%5Ctau%29%5C%2Cd%5Ctau)

Povratna informacija

Točan odgovor je: [x( t )*y( t )=\int_{0}^{t}x(\tau)y(t-\tau)\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2Ay%28%20t%20%29%3D%5Cint_%7B0%7D%5E%7Bt%7Dx%28%5Ctau%29y%28t-%5Ctau%29%5C%2Cd%5Ctau)

**Pitanje 6**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Samo jedna od navedenih tvrdnji o konvoluciji vremenski kontinuiranih signala konačne enerijge nije točna! Koja?

Odaberite jedan odgovor:

A. Konvolucija je distributivna

B. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

C. Konvolucija je kumulativna.

D. Konvolucija je asocijativna.

E. Konvolucija je komutativna.

F. Konvolucija signala s Diracovom distribucijom [\dirac(t)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdirac%28t%29) daje taj isti signal.

Povratna informacija

Točan odgovor je: Konvolucija je kumulativna.

**Pitanje 7**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Odziv vremenski diskretnog sustava [S\bigl[u( n )\bigr]=\sum_{i=0}^{n}u( i )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=S%5Cbigl%5Bu%28%20n%20%29%5Cbigr%5D%3D%5Csum_%7Bi%3D0%7D%5E%7Bn%7Du%28%20i%20%29) na Kroneckerov impuls [\delta( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdelta%28%20n%20%29) je:

Odaberite jedan odgovor:

A. [h( n )=\step( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h%28%20n%20%29%3D%5Cstep%28%20n%20%29)

B. [h( n )=\step( -n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h%28%20n%20%29%3D%5Cstep%28%20-n%20%29)

C. [h( n )=({1\over 2})^n\step( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h%28%20n%20%29%3D%28%7B1%5Cover%202%7D%29%5En%5Cstep%28%20n%20%29)

D. [h( n )=1](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h%28%20n%20%29%3D1)

E. [h( n )=n](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h%28%20n%20%29%3Dn)

F. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

Povratna informacija

Točan odgovor je: [h( n )=\step( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h%28%20n%20%29%3D%5Cstep%28%20n%20%29)

**Pitanje 8**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Konvolucija [\delta( n-1 ) \ast \bigl(\exp( n ) + \cos( n )\bigr)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdelta%28%20n-1%20%29%20%5Cast%20%5Cbigl%28%5Cexp%28%20n%20%29%20%2B%20%5Ccos%28%20n%20%29%5Cbigr%29) je:

Odaberite jedan odgovor:

A. [1](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=1)

B. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

C. [\delta(n-1)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdelta%28n-1%29)

D. [\step(n-1)\exp(n-1)+\step(n+1)\cos(n+1)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cstep%28n-1%29%5Cexp%28n-1%29%2B%5Cstep%28n%2B1%29%5Ccos%28n%2B1%29)

E. [\exp( 1-n)+\cos( 1-n) \step( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cexp%28%201-n%29%2B%5Ccos%28%201-n%29%20%5Cstep%28%20n%20%29)

F. [\exp( n-1) +\cos( n-1)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cexp%28%20n-1%29%20%2B%5Ccos%28%20n-1%29)

Povratna informacija

Točan odgovor je: [\exp( n-1) +\cos( n-1)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cexp%28%20n-1%29%20%2B%5Ccos%28%20n-1%29)

**Pitanje 9**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Konvolucijom dva jedinična skoka [\step( t ) \ast \step( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cstep%28%20t%20%29%20%5Cast%20%5Cstep%28%20t%20%29) dobivamo:

Odaberite jedan odgovor:

A. [t  \step( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=t%20%20%5Cstep%28%20t%20%29)

B. [\dirac( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdirac%28%20t%20%29)

C. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

D. [1](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=1)

E. Irski step ples

F. [\step( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cstep%28%20t%20%29)

Povratna informacija

Točan odgovor je: [t  \step( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=t%20%20%5Cstep%28%20t%20%29)

**Pitanje 10**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Periodična (cirkularna ili kruža) konvolucija dva vremenski diskretna signala [x( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29) i [y( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y%28%20n%20%29) konačne snage i perioda [N](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=N) je definirana izrazom:

Odaberite jedan odgovor:

A. [x( n )\ccnv{*}y( n )=\sum_{i=0}^{N-1}x(i)y(n+i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%5Cccnv%7B%2A%7Dy%28%20n%20%29%3D%5Csum_%7Bi%3D0%7D%5E%7BN-1%7Dx%28i%29y%28n%2Bi%29)

B. [x( n )\ccnv{*}y( n )=\sum_{i=-\infty}^{+\infty}x(i)y(n+i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%5Cccnv%7B%2A%7Dy%28%20n%20%29%3D%5Csum_%7Bi%3D-%5Cinfty%7D%5E%7B%2B%5Cinfty%7Dx%28i%29y%28n%2Bi%29)

C. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

D. [x( n )\ccnv{*}y( n )=\sum_{i=0}^{N-1}x(i)y(n-i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%5Cccnv%7B%2A%7Dy%28%20n%20%29%3D%5Csum_%7Bi%3D0%7D%5E%7BN-1%7Dx%28i%29y%28n-i%29)

E. [x( n )\ccnv{*}y( n )=\sum_{i=-\infty}^{+\infty}x(i)y(n-i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%5Cccnv%7B%2A%7Dy%28%20n%20%29%3D%5Csum_%7Bi%3D-%5Cinfty%7D%5E%7B%2B%5Cinfty%7Dx%28i%29y%28n-i%29)

F. [x( n )\ccnv{*}y( n )=\sum_{i=0}^{n}x(i)y(n-i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%5Cccnv%7B%2A%7Dy%28%20n%20%29%3D%5Csum_%7Bi%3D0%7D%5E%7Bn%7Dx%28i%29y%28n-i%29)

Povratna informacija

Točan odgovor je: [x( n )\ccnv{*}y( n )=\sum_{i=0}^{N-1}x(i)y(n-i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%5Cccnv%7B%2A%7Dy%28%20n%20%29%3D%5Csum_%7Bi%3D0%7D%5E%7BN-1%7Dx%28i%29y%28n-i%29)

Linearna konvolucija dva vremenski diskretna signala [x( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29) i [y( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y%28%20n%20%29) konačne energije je definirana izrazom:

Odaberite jedan odgovor:

A. [x( n )*y( n )=\sum_{i=0}^{N-1}x(i)y(n+i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2Ay%28%20n%20%29%3D%5Csum_%7Bi%3D0%7D%5E%7BN-1%7Dx%28i%29y%28n%2Bi%29)

B. [x( n )*y( n )=\sum_{i=-\infty}^{+\infty}x(i)y(n+i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2Ay%28%20n%20%29%3D%5Csum_%7Bi%3D-%5Cinfty%7D%5E%7B%2B%5Cinfty%7Dx%28i%29y%28n%2Bi%29)

C. [x( n )*y( n )=\sum_{i=0}^{N-1}x(i)y(n-i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2Ay%28%20n%20%29%3D%5Csum_%7Bi%3D0%7D%5E%7BN-1%7Dx%28i%29y%28n-i%29)

D. [x( n )*y( n )=\sum_{i=0}^{N-1}x(i)y(n-i \bmod{N})](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2Ay%28%20n%20%29%3D%5Csum_%7Bi%3D0%7D%5E%7BN-1%7Dx%28i%29y%28n-i%20%5Cbmod%7BN%7D%29)

E. [x( n )*y( n )=\sum_{i=-\infty}^{+\infty}x(i)y(n-i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2Ay%28%20n%20%29%3D%5Csum_%7Bi%3D-%5Cinfty%7D%5E%7B%2B%5Cinfty%7Dx%28i%29y%28n-i%29)

F. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

Povratna informacija

Točan odgovor je: [x( n )*y( n )=\sum_{i=-\infty}^{+\infty}x(i)y(n-i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2Ay%28%20n%20%29%3D%5Csum_%7Bi%3D-%5Cinfty%7D%5E%7B%2B%5Cinfty%7Dx%28i%29y%28n-i%29)

**Pitanje 2**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Konvolucija [(a t+b) \ast \dirac(c t-t_0)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%28a%20t%2Bb%29%20%5Cast%20%5Cdirac%28c%20t-t_0%29) ([t_0](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=t_0), [a](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=a), [b](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=b) i [c](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=c) su realne konstante, [t](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=t) je vrijeme) je:

Odaberite jedan odgovor:

A. [a (t-t_0/c)+2b  \dirac(t-t_0/c)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=a%20%28t-t_0%2Fc%29%2B2b%20%20%5Cdirac%28t-t_0%2Fc%29)

B. Ništa od navedenoga!

C. [a/|c|(t- t_0/c)+b/|c|](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=a%2F%7Cc%7C%28t-%20t_0%2Fc%29%2Bb%2F%7Cc%7C)

D. [at_0/c+b](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=at_0%2Fc%2Bb)

E. [a(t- t_0/c)+b](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=a%28t-%20t_0%2Fc%29%2Bb)

F. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

Povratna informacija

Točan odgovor je: [a/|c|(t- t_0/c)+b/|c|](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=a%2F%7Cc%7C%28t-%20t_0%2Fc%29%2Bb%2F%7Cc%7C)

**Pitanje 3**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Samo jedno od navedenih svojstva jest svojstvo DISTRIBUTIVNOSTI konvolucije vremenski diskretnih signala konačne energije! Koje? [x( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29), [y( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y%28%20n%20%29) i [z( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=z%28%20n%20%29) su vremenski diskretni signali dok je [m](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=m) cijeli broj.

Odaberite jedan odgovor:

A. [x( n )*\delta( n )=\delta( n )*x( n )=x( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2A%5Cdelta%28%20n%20%29%3D%5Cdelta%28%20n%20%29%2Ax%28%20n%20%29%3Dx%28%20n%20%29)

B. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

C. [x( n )*\bigl(y( n ) + z( n )\bigr)=x( n )*y( n )+x( n )*z( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2A%5Cbigl%28y%28%20n%20%29%20%2B%20z%28%20n%20%29%5Cbigr%29%3Dx%28%20n%20%29%2Ay%28%20n%20%29%2Bx%28%20n%20%29%2Az%28%20n%20%29)

D. [x( n + m )*y( n )=x( n )*y( n + m )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%2B%20m%20%29%2Ay%28%20n%20%29%3Dx%28%20n%20%29%2Ay%28%20n%20%2B%20m%20%29)

E. [x( n )*y( n )=y( n )*x( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2Ay%28%20n%20%29%3Dy%28%20n%20%29%2Ax%28%20n%20%29)

F. [x( n )*\bigl(y( n )*z( n )\bigr)=\bigl(x( n )*y( n )\bigr)*z( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2A%5Cbigl%28y%28%20n%20%29%2Az%28%20n%20%29%5Cbigr%29%3D%5Cbigl%28x%28%20n%20%29%2Ay%28%20n%20%29%5Cbigr%29%2Az%28%20n%20%29)

Povratna informacija

Točan odgovor je: [x( n )*\bigl(y( n ) + z( n )\bigr)=x( n )*y( n )+x( n )*z( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2A%5Cbigl%28y%28%20n%20%29%20%2B%20z%28%20n%20%29%5Cbigr%29%3Dx%28%20n%20%29%2Ay%28%20n%20%29%2Bx%28%20n%20%29%2Az%28%20n%20%29)

**Pitanje 4**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Konvolucija [\bigl(\sin( n ) \ast \delta( n+1)\bigr)\delta( n-2)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cbigl%28%5Csin%28%20n%20%29%20%5Cast%20%5Cdelta%28%20n%2B1%29%5Cbigr%29%5Cdelta%28%20n-2%29) je:

Odaberite jedan odgovor:

A. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

B. [\sin( n )\ast\delta(n+1)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Csin%28%20n%20%29%5Cast%5Cdelta%28n%2B1%29)

C. [\sin(3)\delta( n-2)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Csin%283%29%5Cdelta%28%20n-2%29)

D. [\sin( n-1)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Csin%28%20n-1%29)

E. [\sin ( n+1)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Csin%20%28%20n%2B1%29)

F. [\sin( n )\ast\delta( n-1)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Csin%28%20n%20%29%5Cast%5Cdelta%28%20n-1%29)

Povratna informacija

Točan odgovor je: [\sin(3)\delta( n-2)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Csin%283%29%5Cdelta%28%20n-2%29)

**Pitanje 5**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Za koji od navedenih vremenski kontinuiranih signala [y( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y%28%20t%20%29) vrijedi [x( t ) \ast y( t )=x( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%20%5Cast%20y%28%20t%20%29%3Dx%28%20t%20%29), odnosno koji signal jest neutralni element za konvoluciju?

Odaberite jedan odgovor:

A. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

B. [\dirac( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdirac%28%20t%20%29)

C. [1](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=1)

D. [\mu( t )-\mu(t-2)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cmu%28%20t%20%29-%5Cmu%28t-2%29)

E. [\mu( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cmu%28%20t%20%29)

F. [x( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29)

Povratna informacija

Točan odgovor je: [\dirac( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdirac%28%20t%20%29)

**Pitanje 6**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Periodična (cirkularna ili kruža) konvolucija dva vremenski kontinuirana signala [x( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29) i [y( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y%28%20t%20%29) konačne snage i perioda [T](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=T) je definirana izrazom:

Odaberite jedan odgovor:

A. [x( t )\ccnv{*}y( t )=\int_{0}^{T}x(\tau)y(t+\tau)\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%5Cccnv%7B%2A%7Dy%28%20t%20%29%3D%5Cint_%7B0%7D%5E%7BT%7Dx%28%5Ctau%29y%28t%2B%5Ctau%29%5C%2Cd%5Ctau)

B. [x( t )\ccnv{*}y( t )=\int_{0}^{t}x(\tau)y(t+\tau)\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%5Cccnv%7B%2A%7Dy%28%20t%20%29%3D%5Cint_%7B0%7D%5E%7Bt%7Dx%28%5Ctau%29y%28t%2B%5Ctau%29%5C%2Cd%5Ctau)

C. [x( t )\ccnv{*}y( t )=\int_{-\infty}^{+\infty}x(\tau)y(t+\tau)\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%5Cccnv%7B%2A%7Dy%28%20t%20%29%3D%5Cint_%7B-%5Cinfty%7D%5E%7B%2B%5Cinfty%7Dx%28%5Ctau%29y%28t%2B%5Ctau%29%5C%2Cd%5Ctau)

D. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

E. [x( t )\ccnv{*}y( t )=\int_{0}^{T}x(\tau)y(t-\tau)\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%5Cccnv%7B%2A%7Dy%28%20t%20%29%3D%5Cint_%7B0%7D%5E%7BT%7Dx%28%5Ctau%29y%28t-%5Ctau%29%5C%2Cd%5Ctau)

F. [x( t )\ccnv{*}y( t )=\int_{-\infty}^{+\infty}x(\tau)y(t-\tau)\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%5Cccnv%7B%2A%7Dy%28%20t%20%29%3D%5Cint_%7B-%5Cinfty%7D%5E%7B%2B%5Cinfty%7Dx%28%5Ctau%29y%28t-%5Ctau%29%5C%2Cd%5Ctau)

Povratna informacija

Točan odgovor je: [x( t )\ccnv{*}y( t )=\int_{0}^{T}x(\tau)y(t-\tau)\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%5Cccnv%7B%2A%7Dy%28%20t%20%29%3D%5Cint_%7B0%7D%5E%7BT%7Dx%28%5Ctau%29y%28t-%5Ctau%29%5C%2Cd%5Ctau)

**Pitanje 7**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Odziv vremenski kontinuiranog sustava [S\bigl[u( t )\bigr]=\int_{t}^{+\infty}u( \tau )\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=S%5Cbigl%5Bu%28%20t%20%29%5Cbigr%5D%3D%5Cint_%7Bt%7D%5E%7B%2B%5Cinfty%7Du%28%20%5Ctau%20%29%5C%2Cd%5Ctau) na Diracovu distribuciju [\dirac( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdirac%28%20t%20%29) je:

Odaberite jedan odgovor:

A. [h( t )=\step( -t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h%28%20t%20%29%3D%5Cstep%28%20-t%20%29)

B. [h( t )=\step( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h%28%20t%20%29%3D%5Cstep%28%20t%20%29)

C. [h( t )=\dirac( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h%28%20t%20%29%3D%5Cdirac%28%20t%20%29)

D. [h( t )=1](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h%28%20t%20%29%3D1)

E. [h( t )=t](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h%28%20t%20%29%3Dt)

F. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

Povratna informacija

Točan odgovor je: [h( t )=\step( -t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h%28%20t%20%29%3D%5Cstep%28%20-t%20%29)

**Pitanje 8**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Konvolucija [\bigl(x( n )+y( n ) \ast \delta( n+5 )\bigr) \ast \delta( n-2 )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cbigl%28x%28%20n%20%29%2By%28%20n%20%29%20%5Cast%20%5Cdelta%28%20n%2B5%20%29%5Cbigr%29%20%5Cast%20%5Cdelta%28%20n-2%20%29) je:

Odaberite jedan odgovor:

A. [x( n-2 ) \cdot \step( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n-2%20%29%20%5Ccdot%20%5Cstep%28%20n%20%29)

B. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

C. [x( n )+y( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2By%28%20n%20%29)

D. [x( n+2 )+y( n-3 )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%2B2%20%29%2By%28%20n-3%20%29)

E. [x( n+2 )+y( n+8 )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%2B2%20%29%2By%28%20n%2B8%20%29)

F. [x( n-2 )+y( n+3 )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n-2%20%29%2By%28%20n%2B3%20%29)

Povratna informacija

Točan odgovor je: [x( n-2 )+y( n+3 )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n-2%20%29%2By%28%20n%2B3%20%29)

**Pitanje 9**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Konvolucija [\dirac(t+3) \ast x(t+1) \ast \dirac(3 t-1) ](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdirac%28t%2B3%29%20%5Cast%20x%28t%2B1%29%20%5Cast%20%5Cdirac%283%20t-1%29%20) je:

Odaberite jedan odgovor:

A. Ništa od navedenoga!

B. [x(t+1) \ast \dirac(3 t-1)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28t%2B1%29%20%5Cast%20%5Cdirac%283%20t-1%29)

C. [x(t+4-1/3)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28t%2B4-1%2F3%29)

D. [x(t+3-1/4)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28t%2B3-1%2F4%29)

E. [x(t-2+1/3)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28t-2%2B1%2F3%29)

F. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

Povratna informacija

Točan odgovor je: Ništa od navedenoga!

**Pitanje 10**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Profesor tumači da je odziv vremenski diskretnog, vremenski stalnog i mirnog sustava na jedinični skok [\step( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cstep%28%20n%20%29) impulsni odziv sustava. Smatrate da je to:

Odaberite jedan odgovor:

a. netočno

b. točno

c. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

Povratna informacija

Točan odgovor je: netočno

Neka je vremenski diskretni signal [f( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=f%28%20n%20%29) jednak konvoluciji signala [x( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29) i [y( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y%28%20n%20%29), odnosno neka vrijedi [f( n )=x( n ) \ast y( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=f%28%20n%20%29%3Dx%28%20n%20%29%20%5Cast%20y%28%20n%20%29). Čemu je jednak izraz [x( n+1 ) \ast y( n+1 )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%2B1%20%29%20%5Cast%20y%28%20n%2B1%20%29)?

Odaberite jedan odgovor:

A. [f( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=f%28%20n%20%29)

B. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

C. [f( n-2 )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=f%28%20n-2%20%29)

D. [f( n+1 )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=f%28%20n%2B1%20%29)

E. [f( n-1 )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=f%28%20n-1%20%29)

F. [f( n+2 )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=f%28%20n%2B2%20%29)

Povratna informacija

Točan odgovor je: [f( n+2 )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=f%28%20n%2B2%20%29)

**Pitanje 2**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Odziv vremenski kontinuiranog sustava [S\bigl[u( t )\bigr]=\int_{-\infty}^{t}u( \tau )\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=S%5Cbigl%5Bu%28%20t%20%29%5Cbigr%5D%3D%5Cint_%7B-%5Cinfty%7D%5E%7Bt%7Du%28%20%5Ctau%20%29%5C%2Cd%5Ctau) na Diracovu distribuciju [\dirac( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdirac%28%20t%20%29) je:

Odaberite jedan odgovor:

A. [h( t )=\step( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h%28%20t%20%29%3D%5Cstep%28%20t%20%29)

B. [h( t )=\step( -t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h%28%20t%20%29%3D%5Cstep%28%20-t%20%29)

C. [h( t )=\dirac( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h%28%20t%20%29%3D%5Cdirac%28%20t%20%29)

D. [h( t )=1](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h%28%20t%20%29%3D1)

E. [h( t )=t](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h%28%20t%20%29%3Dt)

F. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

Povratna informacija

Točan odgovor je: [h( t )=\step( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h%28%20t%20%29%3D%5Cstep%28%20t%20%29)

**Pitanje 3**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Odziv vremenski diskretnog sustava [S\bigl[u( n )\bigr]=\sum_{i=n}^{+\infty}u( i )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=S%5Cbigl%5Bu%28%20n%20%29%5Cbigr%5D%3D%5Csum_%7Bi%3Dn%7D%5E%7B%2B%5Cinfty%7Du%28%20i%20%29) na Kroneckerov impuls [\delta( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdelta%28%20n%20%29) je:

Odaberite jedan odgovor:

A. [h( n )=\step( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h%28%20n%20%29%3D%5Cstep%28%20n%20%29)

B. [h( n )=\step( -n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h%28%20n%20%29%3D%5Cstep%28%20-n%20%29)

C. [h( n )=({1\over 2})^n\step( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h%28%20n%20%29%3D%28%7B1%5Cover%202%7D%29%5En%5Cstep%28%20n%20%29)

D. [h( n )=1](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h%28%20n%20%29%3D1)

E. [h( n )=n](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h%28%20n%20%29%3Dn)

F. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

Povratna informacija

Točan odgovor je: [h( n )=\step( -n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h%28%20n%20%29%3D%5Cstep%28%20-n%20%29)

**Pitanje 4**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Konvolucija [\bigl(\step( t )\dirac(t-t_0)\dirac(t+t_0)+1\bigr) \ast \dirac(t+t_0)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cbigl%28%5Cstep%28%20t%20%29%5Cdirac%28t-t_0%29%5Cdirac%28t%2Bt_0%29%2B1%5Cbigr%29%20%5Cast%20%5Cdirac%28t%2Bt_0%29) je:

Odaberite jedan odgovor:

A. [\step(t+t_0)+1](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cstep%28t%2Bt_0%29%2B1)

B. [\dirac(t+t_0)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdirac%28t%2Bt_0%29)

C. [\step(t+t_0)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cstep%28t%2Bt_0%29)

D. [1](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=1)

E. [\dirac(t+t_0)+1](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdirac%28t%2Bt_0%29%2B1)

F. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

Povratna informacija

Točan odgovor je: [1](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=1)

**Pitanje 5**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Promatramo li konvolucije vremenski diskretnih signala koji nemaju konačnu energiju tada svojstvo asocijativnosti konvolucije NE vrijedi!

Odaberite jedan odgovor:

a. netočno

b. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

c. točno

Povratna informacija

Točan odgovor je: točno

**Pitanje 6**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Konvolucija [\dirac(t-2) \ast \bigl(\exp( t ) + \cos( t )\bigr)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdirac%28t-2%29%20%5Cast%20%5Cbigl%28%5Cexp%28%20t%20%29%20%2B%20%5Ccos%28%20t%20%29%5Cbigr%29) je:

Odaberite jedan odgovor:

A. [\exp(2-t)+\cos(2-t) ](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cexp%282-t%29%2B%5Ccos%282-t%29%20)

B. [1](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=1)

C. [\dirac(t-2)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdirac%28t-2%29)

D. [\step(t-2)\exp(t-2)+\step(t+2)\cos(t+2)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cstep%28t-2%29%5Cexp%28t-2%29%2B%5Cstep%28t%2B2%29%5Ccos%28t%2B2%29)

E. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

F. [\exp(t-2)+\cos(t-2)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cexp%28t-2%29%2B%5Ccos%28t-2%29)

Povratna informacija

Točan odgovor je: [\exp(t-2)+\cos(t-2)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cexp%28t-2%29%2B%5Ccos%28t-2%29)

**Pitanje 7**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Linearna konvolucija dva vremenski kontinuirana i KAUZALNA signala [x( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29) i [y( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y%28%20t%20%29) konačne energije jest za [t<0](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=t%3C0) definirana izrazom:

Odaberite jedan odgovor:

A. [x( t )*y( t )=\int_{0}^{t}x(\tau)y(t-\tau)\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2Ay%28%20t%20%29%3D%5Cint_%7B0%7D%5E%7Bt%7Dx%28%5Ctau%29y%28t-%5Ctau%29%5C%2Cd%5Ctau)

B. [x( t )*y( t )=\int_{-t}^{+\infty}x(\tau)y(t-\tau)\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2Ay%28%20t%20%29%3D%5Cint_%7B-t%7D%5E%7B%2B%5Cinfty%7Dx%28%5Ctau%29y%28t-%5Ctau%29%5C%2Cd%5Ctau)

C. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

D. [x( t )*y( t )=0](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2Ay%28%20t%20%29%3D0)

E. [x( t )*y( t )=\int_{-t}^{t}x(\tau)y(t-\tau)\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2Ay%28%20t%20%29%3D%5Cint_%7B-t%7D%5E%7Bt%7Dx%28%5Ctau%29y%28t-%5Ctau%29%5C%2Cd%5Ctau)

F. [x( t )*y( t )=\int_{-\infty}^{-t}x(\tau)y(t-\tau)\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2Ay%28%20t%20%29%3D%5Cint_%7B-%5Cinfty%7D%5E%7B-t%7Dx%28%5Ctau%29y%28t-%5Ctau%29%5C%2Cd%5Ctau)

Povratna informacija

Točan odgovor je: [x( t )*y( t )=0](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2Ay%28%20t%20%29%3D0)

**Pitanje 8**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Za koji od navedenih vremenski kontinuiranih signala [y( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y%28%20t%20%29) vrijedi [x( t ) \ast y( t )=x( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%20%5Cast%20y%28%20t%20%29%3Dx%28%20t%20%29), odnosno koji signal jest neutralni element za konvoluciju?

Odaberite jedan odgovor:

A. [\mu( t )-\mu(t-2)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cmu%28%20t%20%29-%5Cmu%28t-2%29)

B. [x( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29)

C. [\mu( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cmu%28%20t%20%29)

D. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

E. [1](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=1)

F. [\dirac( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdirac%28%20t%20%29)

Povratna informacija

Točan odgovor je: [\dirac( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdirac%28%20t%20%29)

**Pitanje 9**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Konvolucija [\delta( n-m) \ast \bigl(\exp( n ) + \cos( n )\bigr)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdelta%28%20n-m%29%20%5Cast%20%5Cbigl%28%5Cexp%28%20n%20%29%20%2B%20%5Ccos%28%20n%20%29%5Cbigr%29) je:

Odaberite jedan odgovor:

A. [\step(n-m)\exp(n-m)+\step( n+m )\cos( n+m )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cstep%28n-m%29%5Cexp%28n-m%29%2B%5Cstep%28%20n%2Bm%20%29%5Ccos%28%20n%2Bm%20%29)

B. [\exp( m-n )+\cos( m-n ) \step( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cexp%28%20m-n%20%29%2B%5Ccos%28%20m-n%20%29%20%5Cstep%28%20n%20%29)

C. [\exp( n-m )+\cos( n-m )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cexp%28%20n-m%20%29%2B%5Ccos%28%20n-m%20%29)

D. [1](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=1)

E. [\delta(n-m)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdelta%28n-m%29)

F. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

Povratna informacija

Točan odgovor je: [\exp( n-m )+\cos( n-m )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cexp%28%20n-m%20%29%2B%5Ccos%28%20n-m%20%29)

**Pitanje 10**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Periodična (cirkularna ili kruža) konvolucija dva vremenski diskretna signala [x( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29) i [y( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y%28%20n%20%29) konačne snage i perioda [N](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=N) je definirana izrazom:

Odaberite jedan odgovor:

A. [x( n )\ccnv{*}y( n )=\sum_{i=0}^{N-1}x(i)y(n+i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%5Cccnv%7B%2A%7Dy%28%20n%20%29%3D%5Csum_%7Bi%3D0%7D%5E%7BN-1%7Dx%28i%29y%28n%2Bi%29)

B. [x( n )\ccnv{*}y( n )=\sum_{i=-\infty}^{+\infty}x(i)y(n-i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%5Cccnv%7B%2A%7Dy%28%20n%20%29%3D%5Csum_%7Bi%3D-%5Cinfty%7D%5E%7B%2B%5Cinfty%7Dx%28i%29y%28n-i%29)

C. [x( n )\ccnv{*}y( n )=\sum_{i=-\infty}^{+\infty}x(i)y(n+i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%5Cccnv%7B%2A%7Dy%28%20n%20%29%3D%5Csum_%7Bi%3D-%5Cinfty%7D%5E%7B%2B%5Cinfty%7Dx%28i%29y%28n%2Bi%29)

D. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

E. [x( n )\ccnv{*}y( n )=\sum_{i=0}^{n}x(i)y(n-i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%5Cccnv%7B%2A%7Dy%28%20n%20%29%3D%5Csum_%7Bi%3D0%7D%5E%7Bn%7Dx%28i%29y%28n-i%29)

F. [x( n )\ccnv{*}y( n )=\sum_{i=0}^{N-1}x(i)y(n-i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%5Cccnv%7B%2A%7Dy%28%20n%20%29%3D%5Csum_%7Bi%3D0%7D%5E%7BN-1%7Dx%28i%29y%28n-i%29)

Povratna informacija

Točan odgovor je: [x( n )\ccnv{*}y( n )=\sum_{i=0}^{N-1}x(i)y(n-i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%5Cccnv%7B%2A%7Dy%28%20n%20%29%3D%5Csum_%7Bi%3D0%7D%5E%7BN-1%7Dx%28i%29y%28n-i%29)

Konvolucijom dva jedinična skoka [\step( t ) \ast \step( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cstep%28%20t%20%29%20%5Cast%20%5Cstep%28%20t%20%29) dobivamo:

Odaberite jedan odgovor:

A. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

B. [\step( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cstep%28%20t%20%29)

C. [t  \step( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=t%20%20%5Cstep%28%20t%20%29)

D. [\dirac( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdirac%28%20t%20%29)

E. [1](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=1)

F. Irski step ples

Povratna informacija

Točan odgovor je: [t  \step( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=t%20%20%5Cstep%28%20t%20%29)

**Pitanje 2**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Odziv vremenski diskretnog sustava [S\bigl[u( n )\bigr]=\sum_{i=-\infty}^{n}u( i )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=S%5Cbigl%5Bu%28%20n%20%29%5Cbigr%5D%3D%5Csum_%7Bi%3D-%5Cinfty%7D%5E%7Bn%7Du%28%20i%20%29) na Kroneckerov impuls [\delta( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdelta%28%20n%20%29) je:

Odaberite jedan odgovor:

A. [h( n )=\step( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h%28%20n%20%29%3D%5Cstep%28%20n%20%29)

B. [h( n )=\step( -n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h%28%20n%20%29%3D%5Cstep%28%20-n%20%29)

C. [h( n )=({1\over 2})^n\step( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h%28%20n%20%29%3D%28%7B1%5Cover%202%7D%29%5En%5Cstep%28%20n%20%29)

D. [h( n )=1](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h%28%20n%20%29%3D1)

E. [h( n )=n](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h%28%20n%20%29%3Dn)

F. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

Povratna informacija

Točan odgovor je: [h( n )=\step( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h%28%20n%20%29%3D%5Cstep%28%20n%20%29)

**Pitanje 3**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Samo jedan od navedenih izraza jest definicija periodične (kružne ili cirkularne) konvolucija dva periodična vremenski diskretna signala [x( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29) i [y( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y%28%20n%20%29) konačne snage perioda [N](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=N). Koji?

Odaberite jedan odgovor:

A. [x( n )*y( n )=\sum_{i=-\infty}^{+\infty}x(i)y(n-i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2Ay%28%20n%20%29%3D%5Csum_%7Bi%3D-%5Cinfty%7D%5E%7B%2B%5Cinfty%7Dx%28i%29y%28n-i%29)

B. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

C. [x( n )\ccnv{*}y( n )=\sum_{i=0}^{N-1}x(i)y(n-i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%5Cccnv%7B%2A%7Dy%28%20n%20%29%3D%5Csum_%7Bi%3D0%7D%5E%7BN-1%7Dx%28i%29y%28n-i%29)

D. [x( t )*y( t )=\int_{-\infty}^{+\infty}x(\tau)y(t-\tau)\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2Ay%28%20t%20%29%3D%5Cint_%7B-%5Cinfty%7D%5E%7B%2B%5Cinfty%7Dx%28%5Ctau%29y%28t-%5Ctau%29%5C%2Cd%5Ctau)

E. [x( t )\ccnv{*}y( t )=\int_{0}^{T}x(\tau)y(t-\tau)\,d\tau ](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%5Cccnv%7B%2A%7Dy%28%20t%20%29%3D%5Cint_%7B0%7D%5E%7BT%7Dx%28%5Ctau%29y%28t-%5Ctau%29%5C%2Cd%5Ctau%20)

F. [x( n )\ccnv{N}y( n )=\sum_{i=0}^{N-1}x(i)y(n-i \bmod{N})](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%5Cccnv%7BN%7Dy%28%20n%20%29%3D%5Csum_%7Bi%3D0%7D%5E%7BN-1%7Dx%28i%29y%28n-i%20%5Cbmod%7BN%7D%29)

Povratna informacija

Točan odgovor je: [x( n )\ccnv{*}y( n )=\sum_{i=0}^{N-1}x(i)y(n-i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%5Cccnv%7B%2A%7Dy%28%20n%20%29%3D%5Csum_%7Bi%3D0%7D%5E%7BN-1%7Dx%28i%29y%28n-i%29)

**Pitanje 4**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Kako nazivamo odziv mirnog sustava na Diracovu distribuciju [\delta(t)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdelta%28t%29)?

Odaberite jedan odgovor:

A. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

B. fazor

C. impulsni odziv

D. prisilni odziv

E. odziv pobuđenog sustava

F. odziv mirnog sustava

Povratna informacija

Točan odgovor je: impulsni odziv

**Pitanje 5**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Samo jedna od navedenih tvrdnji o konvoluciji vremenski kontinuiranih signala konačne enerijge je ispravna! Koja?

Odaberite jedan odgovor:

A. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

B. Za konvolucijski integral NE vrijedi asocijativnost.

C. Konvolucija signala s Diracovom distribucijom [\dirac(t)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdirac%28t%29) ne mijenja signal.

D. Konvolucija signala s rampom [r(t)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=r%28t%29) ne mijenja signal.

E. Za konvolucijski integral NE vrijedi komutativnost.

F. Konvolucija signala s jediničnim skokom [\step(t)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cstep%28t%29) ne mijenja signal.

Povratna informacija

Točan odgovor je: Konvolucija signala s Diracovom distribucijom [\dirac(t)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdirac%28t%29) ne mijenja signal.

**Pitanje 6**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Konvolucija [\bigl(\sin( n ) \ast \delta( n+m )\bigr)\delta(n-m)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cbigl%28%5Csin%28%20n%20%29%20%5Cast%20%5Cdelta%28%20n%2Bm%20%29%5Cbigr%29%5Cdelta%28n-m%29) je:

Odaberite jedan odgovor:

A. [\sin(n-m)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Csin%28n-m%29)

B. [\sin(2m) \delta(n-m)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Csin%282m%29%20%5Cdelta%28n-m%29)

C. [\sin( n )\ast\delta(n-m)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Csin%28%20n%20%29%5Cast%5Cdelta%28n-m%29)

D. [\sin( n+m )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Csin%28%20n%2Bm%20%29)

E. [\sin( n )\ast\delta( n+m )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Csin%28%20n%20%29%5Cast%5Cdelta%28%20n%2Bm%20%29)

F. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

Povratna informacija

Točan odgovor je: [\sin(2m) \delta(n-m)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Csin%282m%29%20%5Cdelta%28n-m%29)

**Pitanje 7**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Konvolucija [\dirac(t-2) \ast \bigl(\exp( t ) + \cos( t )\bigr)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdirac%28t-2%29%20%5Cast%20%5Cbigl%28%5Cexp%28%20t%20%29%20%2B%20%5Ccos%28%20t%20%29%5Cbigr%29) je:

Odaberite jedan odgovor:

A. [\exp(2-t)+\cos(2-t) ](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cexp%282-t%29%2B%5Ccos%282-t%29%20)

B. [\step(t-2)\exp(t-2)+\step(t+2)\cos(t+2)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cstep%28t-2%29%5Cexp%28t-2%29%2B%5Cstep%28t%2B2%29%5Ccos%28t%2B2%29)

C. [\exp(t-2)+\cos(t-2)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cexp%28t-2%29%2B%5Ccos%28t-2%29)

D. [1](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=1)

E. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

F. [\dirac(t-2)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdirac%28t-2%29)

Povratna informacija

Točan odgovor je: [\exp(t-2)+\cos(t-2)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cexp%28t-2%29%2B%5Ccos%28t-2%29)

**Pitanje 8**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Linearna konvolucija dva vremenski kontinuirana signala [x( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29) i [y( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y%28%20t%20%29) konačne energije je definirana izrazom:

Odaberite jedan odgovor:

A. [x( t )*y( t )=\int_{0}^{t}x(\tau)y(t+\tau)\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2Ay%28%20t%20%29%3D%5Cint_%7B0%7D%5E%7Bt%7Dx%28%5Ctau%29y%28t%2B%5Ctau%29%5C%2Cd%5Ctau)

B. [x( t )*y( t )=\int_{-\infty}^{+\infty}x(\tau)y(t-\tau)\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2Ay%28%20t%20%29%3D%5Cint_%7B-%5Cinfty%7D%5E%7B%2B%5Cinfty%7Dx%28%5Ctau%29y%28t-%5Ctau%29%5C%2Cd%5Ctau)

C. [x( t )*y( t )=\int_{0}^{T}x(\tau)y(t+\tau)\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2Ay%28%20t%20%29%3D%5Cint_%7B0%7D%5E%7BT%7Dx%28%5Ctau%29y%28t%2B%5Ctau%29%5C%2Cd%5Ctau)

D. [x( t )*y( t )=\int_{-\infty}^{+\infty}x(\tau)y(t+\tau)\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2Ay%28%20t%20%29%3D%5Cint_%7B-%5Cinfty%7D%5E%7B%2B%5Cinfty%7Dx%28%5Ctau%29y%28t%2B%5Ctau%29%5C%2Cd%5Ctau)

E. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

F. [x( t )*y( t )=\int_{0}^{T}x(\tau)y(t-\tau)\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2Ay%28%20t%20%29%3D%5Cint_%7B0%7D%5E%7BT%7Dx%28%5Ctau%29y%28t-%5Ctau%29%5C%2Cd%5Ctau)

Povratna informacija

Točan odgovor je: [x( t )*y( t )=\int_{-\infty}^{+\infty}x(\tau)y(t-\tau)\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2Ay%28%20t%20%29%3D%5Cint_%7B-%5Cinfty%7D%5E%7B%2B%5Cinfty%7Dx%28%5Ctau%29y%28t-%5Ctau%29%5C%2Cd%5Ctau)

**Pitanje 9**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Konvolucija [(3n+2) \ast \delta( 3n-6 )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%283n%2B2%29%20%5Cast%20%5Cdelta%28%203n-6%20%29) je:

Odaberite jedan odgovor:

A. [3n \step( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=3n%20%5Cstep%28%20n%20%29)

B. [3n-4](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=3n-4)

C. [3(3 n+6)+2(3 n+6)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=3%283%20n%2B6%29%2B2%283%20n%2B6%29)

D. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

E. [3n(3 n-6)+2(3 n-6)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=3n%283%20n-6%29%2B2%283%20n-6%29)

F. [2\delta( 3 n-6 )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=2%5Cdelta%28%203%20n-6%20%29)

Povratna informacija

Točan odgovor je: [3n-4](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=3n-4)

**Pitanje 10**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Promatramo li konvolucije vremenski diskretnih signala koji nemaju konačnu energiju tada svojstvo asocijativnosti konvolucije NE vrijedi!

Odaberite jedan odgovor:

a. točno

b. netočno

c. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

Povratna informacija

Točan odgovor je: točno

Konvolucija [\bigl(\step( n )\delta( n-1 )\delta( n+4 )+1\bigr) \ast \delta( n+2 )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cbigl%28%5Cstep%28%20n%20%29%5Cdelta%28%20n-1%20%29%5Cdelta%28%20n%2B4%20%29%2B1%5Cbigr%29%20%5Cast%20%5Cdelta%28%20n%2B2%20%29) je:

Odaberite jedan odgovor:

A. [1](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=1)

B. [\step( n+5 )+1](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cstep%28%20n%2B5%20%29%2B1)

C. [\step( n+5 )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cstep%28%20n%2B5%20%29)

D. [\delta( n+2 )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdelta%28%20n%2B2%20%29)

E. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

F. [\delta( n+3 )+1](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdelta%28%20n%2B3%20%29%2B1)

Povratna informacija

Točan odgovor je: [1](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=1)

**Pitanje 2**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Konvolucija [\dirac(t+3) \ast x(t+1) \ast \dirac(3 t-1) ](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdirac%28t%2B3%29%20%5Cast%20x%28t%2B1%29%20%5Cast%20%5Cdirac%283%20t-1%29%20) je:

Odaberite jedan odgovor:

A. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

B. Ništa od navedenoga!

C. [x(t-2+1/3)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28t-2%2B1%2F3%29)

D. [x(t+1) \ast \dirac(3 t-1)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28t%2B1%29%20%5Cast%20%5Cdirac%283%20t-1%29)

E. [x(t+4-1/3)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28t%2B4-1%2F3%29)

F. [x(t+3-1/4)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28t%2B3-1%2F4%29)

Povratna informacija

Točan odgovor je: Ništa od navedenoga!

**Pitanje 3**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Konvolucija [\bigl(\sin( t ) \ast \dirac(t+2)\bigr)\dirac(t-1)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cbigl%28%5Csin%28%20t%20%29%20%5Cast%20%5Cdirac%28t%2B2%29%5Cbigr%29%5Cdirac%28t-1%29) je:

Odaberite jedan odgovor:

A. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

B. [\sin( t )\ast\dirac(t+1)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Csin%28%20t%20%29%5Cast%5Cdirac%28t%2B1%29)

C. [\sin(3) \dirac(t-1)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Csin%283%29%20%5Cdirac%28t-1%29)

D. [\sin(t+1)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Csin%28t%2B1%29)

E. [\sin( t )\ast\dirac(t-1)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Csin%28%20t%20%29%5Cast%5Cdirac%28t-1%29)

F. [\sin(t-1)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Csin%28t-1%29)

Povratna informacija

Točan odgovor je: [\sin(3) \dirac(t-1)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Csin%283%29%20%5Cdirac%28t-1%29)

**Pitanje 4**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Samo jedno od navedenih svojstva jest svojstvo DISTRIBUTIVNOSTI konvolucije vremenski diskretnih signala konačne energije! Koje? [x( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29), [y( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y%28%20n%20%29) i [z( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=z%28%20n%20%29) su vremenski diskretni signali dok je [m](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=m) cijeli broj.

Odaberite jedan odgovor:

A. [x( n + m )*y( n )=x( n )*y( n + m )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%2B%20m%20%29%2Ay%28%20n%20%29%3Dx%28%20n%20%29%2Ay%28%20n%20%2B%20m%20%29)

B. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

C. [x( n )*\delta( n )=\delta( n )*x( n )=x( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2A%5Cdelta%28%20n%20%29%3D%5Cdelta%28%20n%20%29%2Ax%28%20n%20%29%3Dx%28%20n%20%29)

D. [x( n )*y( n )=y( n )*x( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2Ay%28%20n%20%29%3Dy%28%20n%20%29%2Ax%28%20n%20%29)

E. [x( n )*\bigl(y( n )*z( n )\bigr)=\bigl(x( n )*y( n )\bigr)*z( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2A%5Cbigl%28y%28%20n%20%29%2Az%28%20n%20%29%5Cbigr%29%3D%5Cbigl%28x%28%20n%20%29%2Ay%28%20n%20%29%5Cbigr%29%2Az%28%20n%20%29)

F. [x( n )*\bigl(y( n ) + z( n )\bigr)=x( n )*y( n )+x( n )*z( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2A%5Cbigl%28y%28%20n%20%29%20%2B%20z%28%20n%20%29%5Cbigr%29%3Dx%28%20n%20%29%2Ay%28%20n%20%29%2Bx%28%20n%20%29%2Az%28%20n%20%29)

Povratna informacija

Točan odgovor je: [x( n )*\bigl(y( n ) + z( n )\bigr)=x( n )*y( n )+x( n )*z( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2A%5Cbigl%28y%28%20n%20%29%20%2B%20z%28%20n%20%29%5Cbigr%29%3Dx%28%20n%20%29%2Ay%28%20n%20%29%2Bx%28%20n%20%29%2Az%28%20n%20%29)

**Pitanje 5**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Neki složeni vremenski kontinuirani sustav se sastoji od paralenog spoja dvaju linearnih vremenski stalnih sustava čiji impulsni odzivi su [h_1( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h_1%28%20t%20%29) i [h_2( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h_2%28%20t%20%29). Ako na ulaz u paralelnog spoja dovedemo signal [x( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29) što ćemo dobiti na izlazu?

Odaberite jedan odgovor:

A. [\bigl( x( t ) \ast h_1( t )\bigr)  h_2( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cbigl%28%20x%28%20t%20%29%20%5Cast%20h_1%28%20t%20%29%5Cbigr%29%20%20h_2%28%20t%20%29)

B. [x( t )\ast\bigl(  h_1( t ) + h_2( t )\bigr)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%5Cast%5Cbigl%28%20%20h_1%28%20t%20%29%20%2B%20h_2%28%20t%20%29%5Cbigr%29)

C. [h_1\bigl(x( t )\bigr)h_2( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h_1%5Cbigl%28x%28%20t%20%29%5Cbigr%29h_2%28%20t%20%29)

D. [x( t )\ast h_1( t ) \ast h_2( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%5Cast%20h_1%28%20t%20%29%20%5Cast%20h_2%28%20t%20%29)

E. [x( t )\bigl(  h_1( t ) \ast h_2( t )\bigr)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%5Cbigl%28%20%20h_1%28%20t%20%29%20%5Cast%20h_2%28%20t%20%29%5Cbigr%29)

F. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

Povratna informacija

Točan odgovor je: [x( t )\ast\bigl(  h_1( t ) + h_2( t )\bigr)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%5Cast%5Cbigl%28%20%20h_1%28%20t%20%29%20%2B%20h_2%28%20t%20%29%5Cbigr%29)

**Pitanje 6**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Linearna konvolucija dva vremenski kontinuirana i KAUZALNA signala [x( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29) i [y( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y%28%20t%20%29) konačne energije jest za [t<0](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=t%3C0) definirana izrazom:

Odaberite jedan odgovor:

A. [x( t )*y( t )=\int_{0}^{t}x(\tau)y(t-\tau)\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2Ay%28%20t%20%29%3D%5Cint_%7B0%7D%5E%7Bt%7Dx%28%5Ctau%29y%28t-%5Ctau%29%5C%2Cd%5Ctau)

B. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

C. [x( t )*y( t )=\int_{-\infty}^{-t}x(\tau)y(t-\tau)\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2Ay%28%20t%20%29%3D%5Cint_%7B-%5Cinfty%7D%5E%7B-t%7Dx%28%5Ctau%29y%28t-%5Ctau%29%5C%2Cd%5Ctau)

D. [x( t )*y( t )=\int_{-t}^{+\infty}x(\tau)y(t-\tau)\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2Ay%28%20t%20%29%3D%5Cint_%7B-t%7D%5E%7B%2B%5Cinfty%7Dx%28%5Ctau%29y%28t-%5Ctau%29%5C%2Cd%5Ctau)

E. [x( t )*y( t )=\int_{-t}^{t}x(\tau)y(t-\tau)\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2Ay%28%20t%20%29%3D%5Cint_%7B-t%7D%5E%7Bt%7Dx%28%5Ctau%29y%28t-%5Ctau%29%5C%2Cd%5Ctau)

F. [x( t )*y( t )=0](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2Ay%28%20t%20%29%3D0)

Povratna informacija

Točan odgovor je: [x( t )*y( t )=0](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2Ay%28%20t%20%29%3D0)

**Pitanje 7**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Konvolucija [\delta( n-3 ) \ast x( n+1 ) \ast \delta( n+2 ) ](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdelta%28%20n-3%20%29%20%5Cast%20x%28%20n%2B1%20%29%20%5Cast%20%5Cdelta%28%20n%2B2%20%29%20) je:

Odaberite jedan odgovor:

A. [x( n-1 )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n-1%20%29)

B. [x( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29)

C. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

D. Ne znam i nije me briga!

E. [x( n+1 )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%2B1%20%29)

F. [x( n+3 )\delta( n-3 )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%2B3%20%29%5Cdelta%28%20n-3%20%29)

Povratna informacija

Točan odgovor je: [x( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29)

**Pitanje 8**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Samo jedno od navedenih svojstva jest svojstvo ASOCIJATIVNOSTI konvolucije vremenski kontinuiranih signala konačne energije! Koje? [x( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29), [y( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y%28%20t%20%29) i [z( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=z%28%20t%20%29) su vremenski diskretni signali dok je [T](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=T) realan broj.

Odaberite jedan odgovor:

A. [x( n + T )*y( t )=x( t )*y( n + T )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%2B%20T%20%29%2Ay%28%20t%20%29%3Dx%28%20t%20%29%2Ay%28%20n%20%2B%20T%20%29)

B. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

C. [x( t )*\bigl(y( t ) + z( t )\bigr)=x( t )*y( t )+x( t )*z( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2A%5Cbigl%28y%28%20t%20%29%20%2B%20z%28%20t%20%29%5Cbigr%29%3Dx%28%20t%20%29%2Ay%28%20t%20%29%2Bx%28%20t%20%29%2Az%28%20t%20%29)

D. [x( t )*y( t )=y( t )*x( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2Ay%28%20t%20%29%3Dy%28%20t%20%29%2Ax%28%20t%20%29)

E. [x( t )*\bigl(y( t )*z( t )\bigr)=\bigl(x( t )*y( t )\bigr)*z( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2A%5Cbigl%28y%28%20t%20%29%2Az%28%20t%20%29%5Cbigr%29%3D%5Cbigl%28x%28%20t%20%29%2Ay%28%20t%20%29%5Cbigr%29%2Az%28%20t%20%29)

F. [x( t )*\dirac( t )=\dirac( t )*x( t )=x( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2A%5Cdirac%28%20t%20%29%3D%5Cdirac%28%20t%20%29%2Ax%28%20t%20%29%3Dx%28%20t%20%29)

Povratna informacija

Točan odgovor je: [x( t )*\bigl(y( t )*z( t )\bigr)=\bigl(x( t )*y( t )\bigr)*z( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2A%5Cbigl%28y%28%20t%20%29%2Az%28%20t%20%29%5Cbigr%29%3D%5Cbigl%28x%28%20t%20%29%2Ay%28%20t%20%29%5Cbigr%29%2Az%28%20t%20%29)

**Pitanje 9**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Profesor tumači da je odziv vremenski diskretnog, linearnog, vremenski stalnog i mirnog sustava na Kroneckerov niz [\dirac( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdirac%28%20n%20%29) impulsni odziv sustava. Smatrate da je to:

Odaberite jedan odgovor:

a. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

b. točno

c. netočno

Povratna informacija

Točan odgovor je: točno

**Pitanje 10**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Periodična (cirkularna ili kruža) konvolucija dva vremenski diskretna signala [x( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29) i [y( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y%28%20n%20%29) konačne snage i perioda [N](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=N) je definirana izrazom:

Odaberite jedan odgovor:

A. [x( n )\ccnv{*}y( n )=\sum_{i=0}^{N-1}x(i)y(n-i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%5Cccnv%7B%2A%7Dy%28%20n%20%29%3D%5Csum_%7Bi%3D0%7D%5E%7BN-1%7Dx%28i%29y%28n-i%29)

B. [x( n )\ccnv{*}y( n )=\sum_{i=0}^{n}x(i)y(n-i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%5Cccnv%7B%2A%7Dy%28%20n%20%29%3D%5Csum_%7Bi%3D0%7D%5E%7Bn%7Dx%28i%29y%28n-i%29)

C. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

D. [x( n )\ccnv{*}y( n )=\sum_{i=0}^{N-1}x(i)y(n+i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%5Cccnv%7B%2A%7Dy%28%20n%20%29%3D%5Csum_%7Bi%3D0%7D%5E%7BN-1%7Dx%28i%29y%28n%2Bi%29)

E. [x( n )\ccnv{*}y( n )=\sum_{i=-\infty}^{+\infty}x(i)y(n+i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%5Cccnv%7B%2A%7Dy%28%20n%20%29%3D%5Csum_%7Bi%3D-%5Cinfty%7D%5E%7B%2B%5Cinfty%7Dx%28i%29y%28n%2Bi%29)

F. [x( n )\ccnv{*}y( n )=\sum_{i=-\infty}^{+\infty}x(i)y(n-i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%5Cccnv%7B%2A%7Dy%28%20n%20%29%3D%5Csum_%7Bi%3D-%5Cinfty%7D%5E%7B%2B%5Cinfty%7Dx%28i%29y%28n-i%29)

Povratna informacija

Točan odgovor je: [x( n )\ccnv{*}y( n )=\sum_{i=0}^{N-1}x(i)y(n-i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%5Cccnv%7B%2A%7Dy%28%20n%20%29%3D%5Csum_%7Bi%3D0%7D%5E%7BN-1%7Dx%28i%29y%28n-i%29)

Konvolucija [(a t+b) \ast \dirac(c t-t_0)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%28a%20t%2Bb%29%20%5Cast%20%5Cdirac%28c%20t-t_0%29) ([t_0](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=t_0), [a](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=a), [b](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=b) i [c](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=c) su realne konstante, [t](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=t) je vrijeme) je:

Odaberite jedan odgovor:

A. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

B. [a/|c|(t- t_0/c)+b/|c|](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=a%2F%7Cc%7C%28t-%20t_0%2Fc%29%2Bb%2F%7Cc%7C)

C. Ništa od navedenoga!

D. [at_0/c+b](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=at_0%2Fc%2Bb)

E. [a (t-t_0/c)+2b  \dirac(t-t_0/c)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=a%20%28t-t_0%2Fc%29%2B2b%20%20%5Cdirac%28t-t_0%2Fc%29)

F. [a(t- t_0/c)+b](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=a%28t-%20t_0%2Fc%29%2Bb)

Povratna informacija

Točan odgovor je: [a/|c|(t- t_0/c)+b/|c|](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=a%2F%7Cc%7C%28t-%20t_0%2Fc%29%2Bb%2F%7Cc%7C)

**Pitanje 2**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Konvolucija vremenski kontinuiranih signala konačne energije NIJE komutativna operacija!

Odaberite jedan odgovor:

a. točno

b. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

c. netočno

Povratna informacija

Točan odgovor je: netočno

**Pitanje 3**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Samo jedan od navedenih izraza jest definicija periodične (kružne ili cirkularne) konvolucija dva periodična vremenski kontinuirana signala [x( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29) i [y( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y%28%20t%20%29) konačne snage perioda [T](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=T). Koji?

Odaberite jedan odgovor:

A. [x( n )\ccnv{*}y( n )=\sum_{i=0}^{N-1}x(i)y(n-i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%5Cccnv%7B%2A%7Dy%28%20n%20%29%3D%5Csum_%7Bi%3D0%7D%5E%7BN-1%7Dx%28i%29y%28n-i%29)

B. [x( n )\ccnv{N}y( n )=\sum_{i=0}^{N-1}x(i)y(n-i \bmod{N})](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%5Cccnv%7BN%7Dy%28%20n%20%29%3D%5Csum_%7Bi%3D0%7D%5E%7BN-1%7Dx%28i%29y%28n-i%20%5Cbmod%7BN%7D%29)

C. [x( t )*y( t )=\int_{-\infty}^{+\infty}x(\tau)y(t-\tau)\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2Ay%28%20t%20%29%3D%5Cint_%7B-%5Cinfty%7D%5E%7B%2B%5Cinfty%7Dx%28%5Ctau%29y%28t-%5Ctau%29%5C%2Cd%5Ctau)

D. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

E. [x( t )\ccnv{*}y( t )=\int_{0}^{T}x(\tau)y(t-\tau)\,d\tau ](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%5Cccnv%7B%2A%7Dy%28%20t%20%29%3D%5Cint_%7B0%7D%5E%7BT%7Dx%28%5Ctau%29y%28t-%5Ctau%29%5C%2Cd%5Ctau%20)

F. [x( n )*y( n )=\sum_{i=-\infty}^{+\infty}x(i)y(n-i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2Ay%28%20n%20%29%3D%5Csum_%7Bi%3D-%5Cinfty%7D%5E%7B%2B%5Cinfty%7Dx%28i%29y%28n-i%29)

Povratna informacija

Točan odgovor je: [x( t )\ccnv{*}y( t )=\int_{0}^{T}x(\tau)y(t-\tau)\,d\tau ](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%5Cccnv%7B%2A%7Dy%28%20t%20%29%3D%5Cint_%7B0%7D%5E%7BT%7Dx%28%5Ctau%29y%28t-%5Ctau%29%5C%2Cd%5Ctau%20)

**Pitanje 4**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Neka je vremenski diskretni signal [f( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=f%28%20n%20%29) jednak konvoluciji signala [x( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29) i [y( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y%28%20n%20%29), odnosno neka vrijedi [f( n )=x( n ) \ast y( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=f%28%20n%20%29%3Dx%28%20n%20%29%20%5Cast%20y%28%20n%20%29). Čemu je jednak izraz [x( n+1 ) \ast y( n+1 )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%2B1%20%29%20%5Cast%20y%28%20n%2B1%20%29)?

Odaberite jedan odgovor:

A. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

B. [f( n+2 )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=f%28%20n%2B2%20%29)

C. [f( n-2 )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=f%28%20n-2%20%29)

D. [f( n+1 )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=f%28%20n%2B1%20%29)

E. [f( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=f%28%20n%20%29)

F. [f( n-1 )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=f%28%20n-1%20%29)

Povratna informacija

Točan odgovor je: [f( n+2 )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=f%28%20n%2B2%20%29)

**Pitanje 5**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Neki složeni vremenski kontinuirani sustav se sastoji od paralenog spoja dvaju linearnih vremenski stalnih sustava čiji impulsni odzivi su [h_1( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h_1%28%20t%20%29) i [h_2( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h_2%28%20t%20%29). Ako na ulaz u paralelnog spoja dovedemo signal [x( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29) što ćemo dobiti na izlazu?

Odaberite jedan odgovor:

A. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

B. [h_1\bigl(x( t )\bigr)h_2( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h_1%5Cbigl%28x%28%20t%20%29%5Cbigr%29h_2%28%20t%20%29)

C. [x( t )\ast h_1( t ) \ast h_2( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%5Cast%20h_1%28%20t%20%29%20%5Cast%20h_2%28%20t%20%29)

D. [x( t )\ast\bigl(  h_1( t ) + h_2( t )\bigr)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%5Cast%5Cbigl%28%20%20h_1%28%20t%20%29%20%2B%20h_2%28%20t%20%29%5Cbigr%29)

E. [\bigl( x( t ) \ast h_1( t )\bigr)  h_2( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cbigl%28%20x%28%20t%20%29%20%5Cast%20h_1%28%20t%20%29%5Cbigr%29%20%20h_2%28%20t%20%29)

F. [x( t )\bigl(  h_1( t ) \ast h_2( t )\bigr)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%5Cbigl%28%20%20h_1%28%20t%20%29%20%5Cast%20h_2%28%20t%20%29%5Cbigr%29)

Povratna informacija

Točan odgovor je: [x( t )\ast\bigl(  h_1( t ) + h_2( t )\bigr)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%5Cast%5Cbigl%28%20%20h_1%28%20t%20%29%20%2B%20h_2%28%20t%20%29%5Cbigr%29)

**Pitanje 6**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Odziv vremenski diskretnog sustava [S\bigl[u( n )\bigr]=\sum_{i=0}^{n}u( i )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=S%5Cbigl%5Bu%28%20n%20%29%5Cbigr%5D%3D%5Csum_%7Bi%3D0%7D%5E%7Bn%7Du%28%20i%20%29) na Kroneckerov impuls [\delta( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdelta%28%20n%20%29) je:

Odaberite jedan odgovor:

A. [h( n )=\step( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h%28%20n%20%29%3D%5Cstep%28%20n%20%29)

B. [h( n )=\step( -n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h%28%20n%20%29%3D%5Cstep%28%20-n%20%29)

C. [h( n )=({1\over 2})^n\step( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h%28%20n%20%29%3D%28%7B1%5Cover%202%7D%29%5En%5Cstep%28%20n%20%29)

D. [h( n )=1](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h%28%20n%20%29%3D1)

E. [h( n )=n](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h%28%20n%20%29%3Dn)

F. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

Povratna informacija

Točan odgovor je: [h( n )=\step( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h%28%20n%20%29%3D%5Cstep%28%20n%20%29)

**Pitanje 7**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Konvolucija [\bigl(\step( t )\dirac(t-t_0)\dirac(t+t_0)+1\bigr) \ast \dirac(t+t_0)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cbigl%28%5Cstep%28%20t%20%29%5Cdirac%28t-t_0%29%5Cdirac%28t%2Bt_0%29%2B1%5Cbigr%29%20%5Cast%20%5Cdirac%28t%2Bt_0%29) je:

Odaberite jedan odgovor:

A. [\dirac(t+t_0)+1](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdirac%28t%2Bt_0%29%2B1)

B. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

C. [\step(t+t_0)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cstep%28t%2Bt_0%29)

D. [\step(t+t_0)+1](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cstep%28t%2Bt_0%29%2B1)

E. [\dirac(t+t_0)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdirac%28t%2Bt_0%29)

F. [1](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=1)

Povratna informacija

Točan odgovor je: [1](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=1)

**Pitanje 8**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Linearna konvolucija dva vremenski diskretna i KAUZALNA signala [x( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29) i [y( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y%28%20n%20%29) konačne energije je za [n\ge0](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=n%5Cge0) definirana izrazom:

Odaberite jedan odgovor:

A. [x( n )*y( n )=\sum_{i=-n}^{n}x(i)y(n-i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2Ay%28%20n%20%29%3D%5Csum_%7Bi%3D-n%7D%5E%7Bn%7Dx%28i%29y%28n-i%29)

B. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

C. [x( n )*y( n )=0](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2Ay%28%20n%20%29%3D0)

D. [x( n )*y( n )=\sum_{i=-\infty}^{-n}x(i)y(n-i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2Ay%28%20n%20%29%3D%5Csum_%7Bi%3D-%5Cinfty%7D%5E%7B-n%7Dx%28i%29y%28n-i%29)

E. [x( n )*y( n )=\sum_{i=-n}^{+\infty}x(i)y(n+i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2Ay%28%20n%20%29%3D%5Csum_%7Bi%3D-n%7D%5E%7B%2B%5Cinfty%7Dx%28i%29y%28n%2Bi%29)

F. [x( n )*y( n )=\sum_{i=0}^{n}x(i)y(n-i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2Ay%28%20n%20%29%3D%5Csum_%7Bi%3D0%7D%5E%7Bn%7Dx%28i%29y%28n-i%29)

Povratna informacija

Točan odgovor je: [x( n )*y( n )=\sum_{i=0}^{n}x(i)y(n-i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2Ay%28%20n%20%29%3D%5Csum_%7Bi%3D0%7D%5E%7Bn%7Dx%28i%29y%28n-i%29)

**Pitanje 9**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Konvolucija vremenski diskretnih signala konačne energije JEST distributivna operacija!

Odaberite jedan odgovor:

a. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

b. netočno

c. točno

Povratna informacija

Točan odgovor je: točno

**Pitanje 10**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Za koji od navedenih vremenski diskretnih signala [y( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y%28%20n%20%29) vrijedi [x( n ) \ast y( n )=x( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%20%5Cast%20y%28%20n%20%29%3Dx%28%20n%20%29)?

Odaberite jedan odgovor:

A. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

B. [\delta( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdelta%28%20n%20%29)

C. [1](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=1)

D. [\step( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cstep%28%20n%20%29)

E. [\step( n ) - \step(n-2)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cstep%28%20n%20%29%20-%20%5Cstep%28n-2%29)

F. [x( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29)

Povratna informacija

Točan odgovor je: [\delta( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdelta%28%20n%20%29)

Konvolucija vremenski kontinuiranih signala konačne energije NIJE komutativna operacija!

Odaberite jedan odgovor:

a. točno

b. netočno

c. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

Povratna informacija

Točan odgovor je: netočno

**Pitanje 2**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Neki složeni vremenski kontinuirani sustav se sastoji od kaskade dvaju linearnih vremenski stalnih sustava čiji impulsni odzivi su [h_1( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h_1%28%20t%20%29) i [h_2( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h_2%28%20t%20%29). Ako na ulaz u kaskadu dovedemo signal [x( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29) što ćemo dobiti na izlazu?

Odaberite jedan odgovor:

A. [x( t )\bigl(  h_1( t ) \ast h_2( t )\bigr)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%5Cbigl%28%20%20h_1%28%20t%20%29%20%5Cast%20h_2%28%20t%20%29%5Cbigr%29)

B. [\bigl( x( t ) \ast h_1( t )\bigr)  h_2( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cbigl%28%20x%28%20t%20%29%20%5Cast%20h_1%28%20t%20%29%5Cbigr%29%20%20h_2%28%20t%20%29)

C. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

D. [x( t )\ast h_1( t ) \ast h_2( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%5Cast%20h_1%28%20t%20%29%20%5Cast%20h_2%28%20t%20%29)

E. [h_1\bigl(x( t )\bigr)h_2( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h_1%5Cbigl%28x%28%20t%20%29%5Cbigr%29h_2%28%20t%20%29)

F. Ovisi o poretku sustava čiji su impulsni odzivi [h_1( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h_1%28%20t%20%29) i [h_2( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h_2%28%20t%20%29)!

Povratna informacija

Točan odgovor je: [x( t )\ast h_1( t ) \ast h_2( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%5Cast%20h_1%28%20t%20%29%20%5Cast%20h_2%28%20t%20%29)

**Pitanje 3**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Konvolucija vremenski diskretnih signala konačne energije JEST distributivna operacija!

Odaberite jedan odgovor:

a. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

b. točno

c. netočno

Povratna informacija

Točan odgovor je: točno

**Pitanje 4**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Linearna konvolucija dva vremenski kontinuirana i KAUZALNA signala [x( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29) i [y( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y%28%20t%20%29) konačne energije jest za [t\ge0](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=t%5Cge0) definirana izrazom:

Odaberite jedan odgovor:

A. [x( t )*y( t )=\int_{-t}^{+\infty}x(\tau)y(t-\tau)\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2Ay%28%20t%20%29%3D%5Cint_%7B-t%7D%5E%7B%2B%5Cinfty%7Dx%28%5Ctau%29y%28t-%5Ctau%29%5C%2Cd%5Ctau)

B. [x( t )*y( t )=0](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2Ay%28%20t%20%29%3D0)

C. [x( t )*y( t )=\int_{-t}^{t}x(\tau)y(t-\tau)\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2Ay%28%20t%20%29%3D%5Cint_%7B-t%7D%5E%7Bt%7Dx%28%5Ctau%29y%28t-%5Ctau%29%5C%2Cd%5Ctau)

D. [x( t )*y( t )=\int_{-\infty}^{-t}x(\tau)y(t-\tau)\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2Ay%28%20t%20%29%3D%5Cint_%7B-%5Cinfty%7D%5E%7B-t%7Dx%28%5Ctau%29y%28t-%5Ctau%29%5C%2Cd%5Ctau)

E. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

F. [x( t )*y( t )=\int_{0}^{t}x(\tau)y(t-\tau)\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2Ay%28%20t%20%29%3D%5Cint_%7B0%7D%5E%7Bt%7Dx%28%5Ctau%29y%28t-%5Ctau%29%5C%2Cd%5Ctau)

Povratna informacija

Točan odgovor je: [x( t )*y( t )=\int_{0}^{t}x(\tau)y(t-\tau)\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%2Ay%28%20t%20%29%3D%5Cint_%7B0%7D%5E%7Bt%7Dx%28%5Ctau%29y%28t-%5Ctau%29%5C%2Cd%5Ctau)

**Pitanje 5**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Za koji od navedenih vremenski diskretnih signala [y( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y%28%20n%20%29) vrijedi [x( n ) \ast y( n )=x( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%20%5Cast%20y%28%20n%20%29%3Dx%28%20n%20%29)?

Odaberite jedan odgovor:

A. [x( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29)

B. [\step( n ) - \step(n-2)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cstep%28%20n%20%29%20-%20%5Cstep%28n-2%29)

C. [\delta( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdelta%28%20n%20%29)

D. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

E. [\step( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cstep%28%20n%20%29)

F. [1](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=1)

Povratna informacija

Točan odgovor je: [\delta( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdelta%28%20n%20%29)

**Pitanje 6**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Konvolucija [x( n ) \ast \bigl(\delta( n+3 )+\delta( n-3 )\bigr)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%20%5Cast%20%5Cbigl%28%5Cdelta%28%20n%2B3%20%29%2B%5Cdelta%28%20n-3%20%29%5Cbigr%29) je:

Odaberite jedan odgovor:

A. [x( n ) \bigl(\step( n-3 )+\step( n+3 )\bigr)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%20%5Cbigl%28%5Cstep%28%20n-3%20%29%2B%5Cstep%28%20n%2B3%20%29%5Cbigr%29)

B. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

C. [x( n-3 )+x( n+3 )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n-3%20%29%2Bx%28%20n%2B3%20%29)

D. [x( 3-n )+x( 3+n )\step( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%203-n%20%29%2Bx%28%203%2Bn%20%29%5Cstep%28%20n%20%29)

E. [\step( n-3 )+\step( n+3 )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cstep%28%20n-3%20%29%2B%5Cstep%28%20n%2B3%20%29)

F. [1](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=1)

Povratna informacija

Točan odgovor je: [x( n-3 )+x( n+3 )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n-3%20%29%2Bx%28%20n%2B3%20%29)

**Pitanje 7**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Konvolucija [\dirac(t-2) \ast \bigl(\exp( t ) + \cos( t )\bigr)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdirac%28t-2%29%20%5Cast%20%5Cbigl%28%5Cexp%28%20t%20%29%20%2B%20%5Ccos%28%20t%20%29%5Cbigr%29) je:

Odaberite jedan odgovor:

A. [\exp(t-2)+\cos(t-2)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cexp%28t-2%29%2B%5Ccos%28t-2%29)

B. [\step(t-2)\exp(t-2)+\step(t+2)\cos(t+2)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cstep%28t-2%29%5Cexp%28t-2%29%2B%5Cstep%28t%2B2%29%5Ccos%28t%2B2%29)

C. [\dirac(t-2)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdirac%28t-2%29)

D. [\exp(2-t)+\cos(2-t) ](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cexp%282-t%29%2B%5Ccos%282-t%29%20)

E. [1](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=1)

F. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

Povratna informacija

Točan odgovor je: [\exp(t-2)+\cos(t-2)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cexp%28t-2%29%2B%5Ccos%28t-2%29)

**Pitanje 8**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Linearna konvolucija dva vremenski diskretna signala [x( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29) i [y( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y%28%20n%20%29) konačne energije je definirana izrazom:

Odaberite jedan odgovor:

A. [x( n )*y( n )=\sum_{i=0}^{N-1}x(i)y(n-i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2Ay%28%20n%20%29%3D%5Csum_%7Bi%3D0%7D%5E%7BN-1%7Dx%28i%29y%28n-i%29)

B. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

C. [x( n )*y( n )=\sum_{i=0}^{N-1}x(i)y(n+i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2Ay%28%20n%20%29%3D%5Csum_%7Bi%3D0%7D%5E%7BN-1%7Dx%28i%29y%28n%2Bi%29)

D. [x( n )*y( n )=\sum_{i=0}^{N-1}x(i)y(n-i \bmod{N})](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2Ay%28%20n%20%29%3D%5Csum_%7Bi%3D0%7D%5E%7BN-1%7Dx%28i%29y%28n-i%20%5Cbmod%7BN%7D%29)

E. [x( n )*y( n )=\sum_{i=-\infty}^{+\infty}x(i)y(n+i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2Ay%28%20n%20%29%3D%5Csum_%7Bi%3D-%5Cinfty%7D%5E%7B%2B%5Cinfty%7Dx%28i%29y%28n%2Bi%29)

F. [x( n )*y( n )=\sum_{i=-\infty}^{+\infty}x(i)y(n-i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2Ay%28%20n%20%29%3D%5Csum_%7Bi%3D-%5Cinfty%7D%5E%7B%2B%5Cinfty%7Dx%28i%29y%28n-i%29)

Povratna informacija

Točan odgovor je: [x( n )*y( n )=\sum_{i=-\infty}^{+\infty}x(i)y(n-i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20n%20%29%2Ay%28%20n%20%29%3D%5Csum_%7Bi%3D-%5Cinfty%7D%5E%7B%2B%5Cinfty%7Dx%28i%29y%28n-i%29)

**Pitanje 9**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Odziv vremenski diskretnog sustava [S\bigl[u( n )\bigr]=\sum_{i=n}^{0}u( i )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=S%5Cbigl%5Bu%28%20n%20%29%5Cbigr%5D%3D%5Csum_%7Bi%3Dn%7D%5E%7B0%7Du%28%20i%20%29) na Kroneckerov impuls [\delta( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdelta%28%20n%20%29) je:

Odaberite jedan odgovor:

A. [h( n )=\step( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h%28%20n%20%29%3D%5Cstep%28%20n%20%29)

B. [h( n )=\step( -n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h%28%20n%20%29%3D%5Cstep%28%20-n%20%29)

C. [h( n )=({1\over 2})^n\step( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h%28%20n%20%29%3D%28%7B1%5Cover%202%7D%29%5En%5Cstep%28%20n%20%29)

D. [h( n )=1](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h%28%20n%20%29%3D1)

E. [h( n )=n](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h%28%20n%20%29%3Dn)

F. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

Povratna informacija

Točan odgovor je: [h( n )=\step( -n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h%28%20n%20%29%3D%5Cstep%28%20-n%20%29)

**Pitanje 10**

Nije odgovoreno

Broj bodova od 1,00

Označi pitanje

Tekst pitanja

Za koji od navedenih signala [y( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y%28%20t%20%29) vrijedi [x( t ) \ast y( t )=x(t+t_0)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29%20%5Cast%20y%28%20t%20%29%3Dx%28t%2Bt_0%29)?

Odaberite jedan odgovor:

A. odustajem od odgovora (pitanje se boduje kao nedogovoreno s 0 bodova)

B. [\dirac(t+t_0)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdirac%28t%2Bt_0%29)

C. [\step(t+t_0)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cstep%28t%2Bt_0%29)

D. [x( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x%28%20t%20%29)

E. [\dirac(t-t_0)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdirac%28t-t_0%29)

F. [\step(t-t_0)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cstep%28t-t_0%29)

Povratna informacija

Točan odgovor je: [\dirac(t+t_0)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=%5Cdirac%28t%2Bt_0%29)

**7. DZ**

Konvolucija [\bigl(\step( t )\dirac(t-t_0)\dirac(t+t_0)+1\bigr) \ast \dirac(t+t_0)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=\bigl(\step(%20t%20)\dirac(t-t_0)\dirac(t+t_0)+1\bigr)%20\ast%20\dirac(t+t_0)) je:

The correct answer is: [1](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=1) .

Konvolucija vremenski kontinuiranih signala konačne energije NIJE distributivna operacija!

The correct answer is: **netočno**.

Linearna konvolucija dva vremenski diskretna signala [x( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x(%20n%20)) i [y( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y(%20n%20)) konačne energije je definirana izrazom:

The correct answer is: [x( n )*y( n )=\sum_{i=-\infty}^{+\infty}x(i)y(n-i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x(%20n%20)*y(%20n%20)=\sum_%7bi=-\infty%7d%5e%7b+\infty%7dx(i)y(n-i)) .

Konvolucija [(3n+2) \ast \delta( 3n-6 )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=(3n+2)%20\ast%20\delta(%203n-6%20)) je:

The correct answer is: [3n-4](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=3n-4) .

Neki složeni vremenski kontinuirani sustav se sastoji od paralenog spoja dvaju linearnih vremenski stalnih sustava čiji impulsni odzivi su [h_1( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h_1(%20t%20)) i [h_2( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h_2(%20t%20)). Ako na ulaz u paralelnog spoja dovedemo signal [x( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x(%20t%20)) što ćemo dobiti na izlazu?

The correct answer is: [x( t )\ast\bigl(  h_1( t ) + h_2( t )\bigr)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x(%20t%20)\ast\bigl(%20%20h_1(%20t%20)%20+%20h_2(%20t%20)\bigr)) .

Za koji od navedenih signala [y( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y(%20t%20)) vrijedi [x( t ) \ast y( t )=x(t+t_0)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x(%20t%20)%20\ast%20y(%20t%20)=x(t+t_0))?

The correct answer is: [\dirac(t+t_0)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=\dirac(t+t_0)) .

Odziv vremenski diskretnog sustava [S\bigl[u( n )\bigr]=\sum_{i=-\infty}^{n}u( i )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=S\bigl%5bu(%20n%20)\bigr%5d=\sum_%7bi=-\infty%7d%5e%7bn%7du(%20i%20)) na Kroneckerov impuls [\delta( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=\delta(%20n%20)) je:

The correct answer is: [h( n )=\step( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h(%20n%20)=\step(%20n%20)) .

Konvolucija [\bigl(\sin( n ) \ast \delta( n+m )\bigr)\delta(n-m)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=\bigl(\sin(%20n%20)%20\ast%20\delta(%20n+m%20)\bigr)\delta(n-m)) je:

The correct answer is: [\sin(2m) \delta(n-m)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=\sin(2m)%20\delta(n-m)) .

Samo jedno od navedenih svojstva jest svojstvo KOMUTATIVNOSTI konvolucije vremenski diskretnih signala konačne energije! Koje? [x( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x(%20n%20)),[y( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y(%20n%20)) i [z( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=z(%20n%20)) su vremenski diskretni signali dok je [m](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=m) cijeli broj.

The correct answer is: [x( n )*y( n )=y( n )*x( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x(%20n%20)*y(%20n%20)=y(%20n%20)*x(%20n%20)) .

Samo jedan od navedenih izraza jest definicija periodične (kružne ili cirkularne) konvolucija dva periodična vremenski kontinuirana signala [x( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x(%20t%20)) i [y( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y(%20t%20)) konačne snage perioda [T](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=T). Koji?

The correct answer is: [x( t )\ccnv{*}y( t )=\int_{0}^{T}x(\tau)y(t-\tau)\,d\tau ](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x(%20t%20)\ccnv%7b*%7dy(%20t%20)=\int_%7b0%7d%5e%7bT%7dx(\tau)y(t-\tau)\,d\tau%20) .

Konvolucija [\bigl(x( n )+y( n ) \ast \delta( n+5 )\bigr) \ast \delta( n-2 )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=\bigl(x(%20n%20)+y(%20n%20)%20\ast%20\delta(%20n+5%20)\bigr)%20\ast%20\delta(%20n-2%20)) je:

The correct answer is: [x( n-2 )+y( n+3 )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x(%20n-2%20)+y(%20n+3%20)) .

Konvolucija [(a t+b) \ast \dirac(c t-t_0)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=(a%20t+b)%20\ast%20\dirac(c%20t-t_0)) ([t_0](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=t_0), [a](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=a), [b](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=b) i [c](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=c) su realne konstante, [t](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=t) je vrijeme) je:

The correct answer is: **Ništa od navedenoga!.**

Odziv vremenski diskretnog sustava [S\bigl[u( n )\bigr]=\sum_{i=n}^{+\infty}u( i )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=S\bigl%5bu(%20n%20)\bigr%5d=\sum_%7bi=n%7d%5e%7b+\infty%7du(%20i%20)) na Kroneckerov impuls [\delta( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=\delta(%20n%20)) je:

The correct answer is: [h( n )=\step( -n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h(%20n%20)=\step(%20-n%20)) .

Neka je vremenski kontinuirani signal [z( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=z(%20t%20)) zadan kao [z( t )=x( t ) \ast y( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=z(%20t%20)=x(%20t%20)%20\ast%20y(%20t%20)). Čemu je jednako [x(t-t_0) \ast y(t-t_0)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x(t-t_0)%20\ast%20y(t-t_0))?

The correct answer is: [z( t-2t_0)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=z(%20t-2t_0)) .

Konvolucija vremenski diskretnih signala konačne energije NIJE asocijativna operacija!

The correct answer is: **netočno**.

Konvolucija vremenski kontinuiranih signala konačne energije NIJE distributivna operacija!

The correct answer is: **netočno**.

Linearna konvolucija dva vremenski diskretna signala [x( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x(%20n%20)) i [y( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y(%20n%20)) konačne energije je definirana izrazom:

The correct answer is: [x( n )*y( n )=\sum_{i=-\infty}^{+\infty}x(i)y(n-i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x(%20n%20)*y(%20n%20)=\sum_%7bi=-\infty%7d%5e%7b+\infty%7dx(i)y(n-i)) .

Za koju od navedenih funkcija [y( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y(%20n%20)) vrijedi [x( n ) \ast y( n )=x( n+1 )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x(%20n%20)%20\ast%20y(%20n%20)=x(%20n+1%20))?

The correct answer is: [\delta( n+1 )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=\delta(%20n+1%20)) .

Odziv vremenski kontinuiranog sustava [S\bigl[u( t )\bigr]=\int_{t}^{+\infty}u( \tau )\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=S\bigl%5bu(%20t%20)\bigr%5d=\int_%7bt%7d%5e%7b+\infty%7du(%20\tau%20)\,d\tau) na Diracovu distribuciju [\dirac( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=\dirac(%20t%20)) je: The correct answer is: [h( t )=\step( -t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h(%20t%20)=\step(%20-t%20)) .

Periodična (cirkularna ili kruža) konvolucija dva vremenski kontinuirana signala [x( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x(%20t%20)) i [y( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y(%20t%20)) konačne snage i perioda [T](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=T) je definirana izrazom:

The correct answer is: [x( t )\ccnv{*}y( t )=\int_{0}^{T}x(\tau)y(t-\tau)\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x(%20t%20)\ccnv%7b*%7dy(%20t%20)=\int_%7b0%7d%5e%7bT%7dx(\tau)y(t-\tau)\,d\tau) .

Impulsni odziv vremenski kontinuiranog linearn vremenski stalnog sustava je odziv mirnog sustava na:

The correct answer is: Diracovu distribuciju [\delta(t)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=\delta(t)) .

Za koju od navedenih funkcija [y( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y(%20n%20)) vrijedi [x( n ) \ast y( n )=x( n+1 )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x(%20n%20)%20\ast%20y(%20n%20)=x(%20n+1%20))?

The correct answer is: [\delta( n+1 )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=\delta(%20n+1%20)) .

Konvolucija vremenski diskretnih signala konačne energije NIJE asocijativna operacija!

The correct answer is: **netočno**.

Neka je vremenski kontinuirani signal [z( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=z(%20t%20)) zadan kao [z( t )=x( t ) \ast y( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=z(%20t%20)=x(%20t%20)%20\ast%20y(%20t%20)). Čemu je jednako [x(t-t_0) \ast y(t-t_0)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x(t-t_0)%20\ast%20y(t-t_0))?

The correct answer is: [z( t-2t_0)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=z(%20t-2t_0)) .

Konvolucijom dva jedinična skoka [\step( t ) \ast \step( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=\step(%20t%20)%20\ast%20\step(%20t%20)) dobivamo:

The correct answer is: [t  \step( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=t%20%20\step(%20t%20)) .

Da bi konvolucija [x( n )\ast y( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x(%20n%20)\ast%20y(%20n%20)) bila jednaka [x( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x(%20n%20)) s kašnjenjem od [m](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=m) koraka tada [y( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y(%20n%20)) mora biti:

The correct answer is: [\delta( n-m )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=\delta(%20n-m%20)) .

Odziv vremenski diskretnog sustava [S\bigl[u( n )\bigr]=\sum_{i=n}^{0}u( i )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=S\bigl%5bu(%20n%20)\bigr%5d=\sum_%7bi=n%7d%5e%7b0%7du(%20i%20)) na Kroneckerov impuls [\delta( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=\delta(%20n%20)) je:

The correct answer is: [h( n )=\step( -n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h(%20n%20)=\step(%20-n%20)) .

Linearna konvolucija dva vremenski kontinuirana i KAUZALNA signala [x( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x(%20t%20)) i [y( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y(%20t%20)) konačne energije jest za [t<0](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=t%3c0) definirana izrazom:

The correct answer is: [x( t )*y( t )=0](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x(%20t%20)*y(%20t%20)=0) .

Samo jedno od navedenih svojstva jest svojstvo ASOCIJATIVNOSTI konvolucije vremenski kontinuiranih signala konačne energije! Koje? [x( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x(%20t%20)), [y( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y(%20t%20)) i [z( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=z(%20t%20))su vremenski diskretni signali dok je [T](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=T) realan broj.

The correct answer is: [x( t )*\bigl(y( t )*z( t )\bigr)=\bigl(x( t )*y( t )\bigr)*z( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x(%20t%20)*\bigl(y(%20t%20)*z(%20t%20)\bigr)=\bigl(x(%20t%20)*y(%20t%20)\bigr)*z(%20t%20)) .

Linearna konvolucija dva vremenski diskretna i KAUZALNA signala [x( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x(%20n%20)) i [y( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y(%20n%20)) konačne energije je za [n\ge0](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=n\ge0) definirana izrazom:

The correct answer is: [x( n )*y( n )=\sum_{i=0}^{n}x(i)y(n-i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x(%20n%20)*y(%20n%20)=\sum_%7bi=0%7d%5e%7bn%7dx(i)y(n-i)) .

Konvolucija [\bigl(\sin( t ) \ast \dirac(t+2)\bigr)\dirac(t-1)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=\bigl(\sin(%20t%20)%20\ast%20\dirac(t+2)\bigr)\dirac(t-1)) je:

The correct answer is: [\sin(3) \dirac(t-1)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=\sin(3)%20\dirac(t-1)) .

Promatramo li konvolucije vremenski diskretnih signala koji nemaju konačnu energiju tada svojstvo asocijativnosti konvolucije NE vrijedi!

The correct answer is: **točno**.

Odziv vremenski diskretnog sustava [S\bigl[u( n )\bigr]=\sum_{i=n}^{0}u( i )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=S\bigl%5bu(%20n%20)\bigr%5d=\sum_%7bi=n%7d%5e%7b0%7du(%20i%20)) na Kroneckerov impuls [\delta( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=\delta(%20n%20)) je:

The correct answer is: [h( n )=\step( -n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h(%20n%20)=\step(%20-n%20)) .

Linearna konvolucija dva vremenski diskretna i KAUZALNA signala [x( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x(%20n%20)) i [y( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y(%20n%20)) konačne energije je za [n<0](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=n%3c0) definirana izrazom:

The correct answer is: [x( n )*y( n )=0](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x(%20n%20)*y(%20n%20)=0) .

Konvolucija [\bigl(\step( t )\dirac(t-t_0)\dirac(t+t_0)+1\bigr) \ast \dirac(t+t_0)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=\bigl(\step(%20t%20)\dirac(t-t_0)\dirac(t+t_0)+1\bigr)%20\ast%20\dirac(t+t_0)) je:

The correct answer is: [1](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=1) .

Linearna konvolucija dva vremenski kontinuirana signala [x( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x(%20t%20)) i [y( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y(%20t%20)) konačne energije je definirana izrazom:

The correct answer is: [x( t )*y( t )=\int_{-\infty}^{+\infty}x(\tau)y(t-\tau)\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x(%20t%20)*y(%20t%20)=\int_%7b-\infty%7d%5e%7b+\infty%7dx(\tau)y(t-\tau)\,d\tau) .

Samo jedna od navedenih tvrdnji o konvoluciji vremenski kontinuiranih signala konačne enerijge je ispravna! Koja?

The correct answer is**: Konvolucija signala s Diracovom distribucijom** **[\dirac(t)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=\dirac(t))** **ne mijenja signal**. .

Konvolucija [\bigl(\step( n )\delta( n-1 )\delta( n+4 )+1\bigr) \ast \delta( n+2 )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=\bigl(\step(%20n%20)\delta(%20n-1%20)\delta(%20n+4%20)+1\bigr)%20\ast%20\delta(%20n+2%20)) je:

The correct answer is: [1](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=1) .

Konvolucija [\delta( n-3 ) \ast x( n+1 ) \ast \delta( n+2 ) ](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=\delta(%20n-3%20)%20\ast%20x(%20n+1%20)%20\ast%20\delta(%20n+2%20)%20) je:

The correct answer is: [x( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x(%20n%20)) .

Odziv vremenski diskretnog sustava [S\bigl[u( n )\bigr]=\sum_{i=n}^{0}u( i )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=S\bigl%5bu(%20n%20)\bigr%5d=\sum_%7bi=n%7d%5e%7b0%7du(%20i%20)) na Kroneckerov impuls [\delta( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=\delta(%20n%20)) je:

The correct answer is: [h( n )=\step( -n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h(%20n%20)=\step(%20-n%20)) .

Konvolucija [x( n ) \ast \bigl(\delta( n+3 )+\delta( n-3 )\bigr)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x(%20n%20)%20\ast%20\bigl(\delta(%20n+3%20)+\delta(%20n-3%20)\bigr)) je:

The correct answer is: [x( n-3 )+x( n+3 )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x(%20n-3%20)+x(%20n+3%20)) .

Samo jedan od navedenih izraza jest definicija periodične (kružne ili cirkularne) konvolucija dva periodična vremenski diskretna signala [x( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x(%20n%20)) i [y( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y(%20n%20))konačne snage perioda [N](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=N). Koji?

The correct answer is: [x( n )\ccnv{*}y( n )=\sum_{i=0}^{N-1}x(i)y(n-i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x(%20n%20)\ccnv%7b*%7dy(%20n%20)=\sum_%7bi=0%7d%5e%7bN-1%7dx(i)y(n-i)) .

Konvolucija [(a t+b) \ast \dirac(c t-t_0)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=(a%20t+b)%20\ast%20\dirac(c%20t-t_0)) ([t_0](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=t_0), [a](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=a), [b](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=b) i [c](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=c) su realne konstante, [t](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=t) je vrijeme) je:

The correct answer is**: Ništa od navedenoga!.**

Promatramo li konvolucije vremenski diskretnih signala koji nemaju konačnu energiju tada svojstvo asocijativnosti konvolucije NE vrijedi!

The correct answer is: **točno**.

Samo jedno od navedenih svojstva jest svojstvo ASOCIJATIVNOSTI konvolucije vremenski kontinuiranih signala konačne energije! Koje? [x( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x(%20t%20)), [y( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y(%20t%20)) i [z( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=z(%20t%20))su vremenski diskretni signali dok je [T](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=T) realan broj.

The correct answer is: [x( t )*\bigl(y( t )*z( t )\bigr)=\bigl(x( t )*y( t )\bigr)*z( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x(%20t%20)*\bigl(y(%20t%20)*z(%20t%20)\bigr)=\bigl(x(%20t%20)*y(%20t%20)\bigr)*z(%20t%20)) .

Da bi konvolucija [x( t ) \ast y( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x(%20t%20)%20\ast%20y(%20t%20)) bila jednaka [x( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x(%20t%20)) s kašnjenjem od [t_0](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=t_0) tada [y( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y(%20t%20)) mora biti:

The correct answer is: [\dirac(t-t_0)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=\dirac(t-t_0)) .

Samo jedan od navedenih izraza jest definicija linearne konvolucija dva vremenski kontinuirana signala [x( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x(%20t%20)) i [y( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y(%20t%20)) konačne energije. Koji?

The correct answer is: [x( t )*y( t )=\int_{-\infty}^{+\infty}x(\tau)y(t-\tau)\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x(%20t%20)*y(%20t%20)=\int_%7b-\infty%7d%5e%7b+\infty%7dx(\tau)y(t-\tau)\,d\tau) .

Neka je vremenski diskretni signal [f( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=f(%20n%20)) jednak konvoluciji signala [x( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x(%20n%20)) i [y( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y(%20n%20)), odnosno neka vrijedi [f( n )=x( n ) \ast y( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=f(%20n%20)=x(%20n%20)%20\ast%20y(%20n%20)). Čemu je jednak izraz [x( n+1 ) \ast y( n+1 )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x(%20n+1%20)%20\ast%20y(%20n+1%20))?

The correct answer is: [f( n+2 )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=f(%20n+2%20)) .

Odziv vremenski kontinuiranog sustava [S\bigl[u( t )\bigr]=\int_{-\infty}^{t}u( \tau )\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=S\bigl%5bu(%20t%20)\bigr%5d=\int_%7b-\infty%7d%5e%7bt%7du(%20\tau%20)\,d\tau) na Diracovu distribuciju [\dirac( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=\dirac(%20t%20)) je:

The correct answer is: [h( t )=\step( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h(%20t%20)=\step(%20t%20)) .

Konvolucija vremenski diskretnih signala konačne energije JEST komutativna operacija!

The correct answer is: **točno**.

Linearna konvolucija dva vremenski kontinuirana signala [x( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x(%20t%20)) i [y( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y(%20t%20)) konačne energije je definirana izrazom:

The correct answer is: [x( t )*y( t )=\int_{-\infty}^{+\infty}x(\tau)y(t-\tau)\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x(%20t%20)*y(%20t%20)=\int_%7b-\infty%7d%5e%7b+\infty%7dx(\tau)y(t-\tau)\,d\tau) .

Samo jedan od navedenih izraza jest definicija linearne konvolucija dva vremenski diskretna signala [x( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x(%20n%20)) i [y( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y(%20n%20)) konačne energije. Koji?

The correct answer is: [x( n )*y( n )=\sum_{i=-\infty}^{+\infty}x(i)y(n-i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x(%20n%20)*y(%20n%20)=\sum_%7bi=-\infty%7d%5e%7b+\infty%7dx(i)y(n-i)) .

Konvolucija vremenski kontinuiranih signala konačne energije NIJE distributivna operacija!

The correct answer is: **netočno**.

Konvolucija [\delta( n-1 ) \ast \bigl(\exp( n ) + \cos( n )\bigr)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=\delta(%20n-1%20)%20\ast%20\bigl(\exp(%20n%20)%20+%20\cos(%20n%20)\bigr)) je:

The correct answer is: [\exp( n-1) +\cos( n-1)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=\exp(%20n-1)%20+\cos(%20n-1)) .

Konvolucija [\dirac(t+3) \ast x(t+1) \ast \dirac(3 t-1) ](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=\dirac(t+3)%20\ast%20x(t+1)%20\ast%20\dirac(3%20t-1)%20) je:

The correct answer is: **Ništa od navedenoga**!.

Impulsni odziv vremenski kontinuiranog linearn vremenski stalnog sustava je odziv mirnog sustava na:

The correct answer is: **Diracovu distribuciju** [\delta(t)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=\delta(t)) .

Konvolucija [(3n+2) \ast \delta( 3n-6 )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=(3n+2)%20\ast%20\delta(%203n-6%20)) je:

The correct answer is: [3n-4](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=3n-4) .

Profesor tumači da je odziv vremenski diskretnog, vremenski stalnog i mirnog sustava na jedinični skok [\step( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=\step(%20n%20)) impulsni odziv sustava. Smatrate da je to:

The correct answer is: **točno**.

Konvolucija [\bigl(\sin( t ) \ast \dirac(t+2)\bigr)\dirac(t-1)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=\bigl(\sin(%20t%20)%20\ast%20\dirac(t+2)\bigr)\dirac(t-1)) je:

The correct answer is: [\sin(3) \dirac(t-1)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=\sin(3)%20\dirac(t-1)) .

Samo jedno od navedenih svojstva jest svojstvo DISTRIBUTIVNOSTI konvolucije vremenski kontinuiranih signala konačne energije! Koje? [x( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x(%20t%20)), [y( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y(%20t%20)) i [z( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=z(%20t%20))su vremenski kontinuirani signali dok je [T](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=T) realan broj.

The answer is: [x( t )*\bigl(y( t ) + z( t )\bigr)=x( t )*y( t )+x( t )*z( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x(%20t%20)*\bigl(y(%20t%20)%20+%20z(%20t%20)\bigr)=x(%20t%20)*y(%20t%20)+x(%20t%20)*z(%20t%20)) .

Konvolucija [\delta( n-m) \ast \bigl(\exp( n ) + \cos( n )\bigr)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=\delta(%20n-m)%20\ast%20\bigl(\exp(%20n%20)%20+%20\cos(%20n%20)\bigr)) je:

The correct answer is: [\exp( n-m )+\cos( n-m )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=\exp(%20n-m%20)+\cos(%20n-m%20)) .

Odziv vremenski diskretnog sustava [S\bigl[u( n )\bigr]=\sum_{i=-\infty}^{n}u( i )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=S\bigl%5bu(%20n%20)\bigr%5d=\sum_%7bi=-\infty%7d%5e%7bn%7du(%20i%20)) na Kroneckerov impuls [\delta( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=\delta(%20n%20)) je:

The correct answer is: [h( n )=\step( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h(%20n%20)=\step(%20n%20)) .

Konvolucija [(3n+2) \ast \delta( 3n-6 )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=(3n+2)%20\ast%20\delta(%203n-6%20)) je:

The correct answer is: [3n-4](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=3n-4) .

Kako nazivamo odziv mirnog sustava na Diracovu distribuciju [\delta(t)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=\delta(t))?

The correct answer is: **impulsni odziv**.

Konvolucija [\dirac(t-2) \ast \bigl(\exp( t ) + \cos( t )\bigr)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=\dirac(t-2)%20\ast%20\bigl(\exp(%20t%20)%20+%20\cos(%20t%20)\bigr)) je:

The correct answer is: [\exp(t-2)+\cos(t-2)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=\exp(t-2)+\cos(t-2)) .

Linearna konvolucija dva vremenski diskretna i KAUZALNA signala [x( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x(%20n%20)) i [y( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y(%20n%20)) konačne energije je za [n\ge0](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=n\ge0) definirana izrazom:

The correct answer is: [x( n )*y( n )=\sum_{i=0}^{n}x(i)y(n-i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x(%20n%20)*y(%20n%20)=\sum_%7bi=0%7d%5e%7bn%7dx(i)y(n-i)) .

Za koji od navedenih signala [y( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y(%20t%20)) vrijedi [x( t ) \ast y( t )=x(t+t_0)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x(%20t%20)%20\ast%20y(%20t%20)=x(t+t_0))?

The correct answer is: [\dirac(t+t_0)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=\dirac(t+t_0)) .

Samo jedno od navedenih svojstva iskazuje postojanje NEUTRALNOG ELEMENTA za operaciju konvolucije vremenski diskretnih signala konačne energije! Koje? [x( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x(%20n%20)), [y( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y(%20n%20)) i [z( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=z(%20n%20)) su vremenski diskretni signali dok je [m](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=m) cijeli broj.

The correct answer is: [x( n )*\delta( n )=\delta( n )*x( n )=x( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x(%20n%20)*\delta(%20n%20)=\delta(%20n%20)*x(%20n%20)=x(%20n%20)) .

Linearna konvolucija dva vremenski kontinuirana signala [x( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x(%20t%20)) i [y( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y(%20t%20)) konačne energije je definirana izrazom:

The correct answer is: [x( t )*y( t )=\int_{-\infty}^{+\infty}x(\tau)y(t-\tau)\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x(%20t%20)*y(%20t%20)=\int_%7b-\infty%7d%5e%7b+\infty%7dx(\tau)y(t-\tau)\,d\tau) .

Konvolucija [x( n ) \ast \bigl(\delta( n+m )+\delta( n-m )\bigr)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x(%20n%20)%20\ast%20\bigl(\delta(%20n+m%20)+\delta(%20n-m%20)\bigr)) je:

The correct answer is: [x( n-m )+x( n+m )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x(%20n-m%20)+x(%20n+m%20)) .

Konvolucija [(a t+b) \ast \dirac(c t-t_0)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=(a%20t+b)%20\ast%20\dirac(c%20t-t_0)) ([t_0](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=t_0), [a](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=a), [b](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=b) i [c](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=c) su realne konstante, [t](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=t) je vrijeme) je:

The correct answer is: **Ništa od navedenoga!**.

Konvolucija vremenski kontinuiranih signala konačne energije JEST asocijativna operacija!

The correct answer is: **točno**.

Impulsni odziv vremenski kontinuiranog linearn vremenski stalnog sustava je odziv mirnog sustava na:

The correct answer is: **Diracovu distribuciju** [\delta(t)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=\delta(t)) .

Samo jedno od navedenih svojstva iskazuje postojanje NEUTRALNOG ELEMENTA za operaciju konvolucije vremenski diskretnih signala konačne energije! Koje? [x( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x(%20n%20)), [y( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y(%20n%20)) i [z( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=z(%20n%20)) su vremenski diskretni signali dok je [m](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=m) cijeli broj.

The correct answer is: [x( n )*\delta( n )=\delta( n )*x( n )=x( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x(%20n%20)*\delta(%20n%20)=\delta(%20n%20)*x(%20n%20)=x(%20n%20)) .

Periodična (cirkularna ili kruža) konvolucija dva vremenski kontinuirana signala [x( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x(%20t%20)) i [y( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y(%20t%20)) konačne snage i perioda [T](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=T) je definirana izrazom:

The correct answer is: [x( t )\ccnv{*}y( t )=\int_{0}^{T}x(\tau)y(t-\tau)\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x(%20t%20)\ccnv%7b*%7dy(%20t%20)=\int_%7b0%7d%5e%7bT%7dx(\tau)y(t-\tau)\,d\tau) .

Konvolucija [\dirac(t+3) \ast x(t+1) \ast \dirac(3 t-1) ](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=\dirac(t+3)%20\ast%20x(t+1)%20\ast%20\dirac(3%20t-1)%20) je:

The correct answer is: [x(t+4-1/3)/3](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x(t+4-1/3)/3) .

Periodična (cirkularna ili kruža) konvolucija dva vremenski diskretna signala [x( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x(%20n%20)) i [y( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y(%20n%20)) konačne snage i perioda [N](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=N) je definirana izrazom:

The correct answer is: [x( n )\ccnv{*}y( n )=\sum_{i=0}^{N-1}x(i)y(n-i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x(%20n%20)\ccnv%7b*%7dy(%20n%20)=\sum_%7bi=0%7d%5e%7bN-1%7dx(i)y(n-i)) .

Odziv vremenski diskretnog sustava [S\bigl[u( n )\bigr]=\sum_{i=n}^{+\infty}u( i )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=S\bigl%5bu(%20n%20)\bigr%5d=\sum_%7bi=n%7d%5e%7b+\infty%7du(%20i%20)) na Kroneckerov impuls [\delta( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=\delta(%20n%20)) je:

The correct answer is: [h( n )=\step( -n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h(%20n%20)=\step(%20-n%20)) .

Da bi konvolucija [x( n )\ast y( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x(%20n%20)\ast%20y(%20n%20)) bila jednaka [x( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x(%20n%20)) s kašnjenjem od [m](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=m) koraka tada [y( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y(%20n%20)) mora biti:

The correct answer is: [\delta( n-m )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=\delta(%20n-m%20)) .

Samo jedno od navedenih svojstva iskazuje postojanje NEUTRALNOG ELEMENTA za operaciju konvolucije vremenski diskretnih signala konačne energije! Koje? [x( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x(%20n%20)), [y( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y(%20n%20)) i [z( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=z(%20n%20)) su vremenski diskretni signali dok je [m](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=m) cijeli broj.

The correct answer is: [x( n )*\delta( n )=\delta( n )*x( n )=x( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x(%20n%20)*\delta(%20n%20)=\delta(%20n%20)*x(%20n%20)=x(%20n%20)) .

Profesor tumači da je odziv vremenski diskretnog, linearnog, vremenski stalnog i mirnog sustava na Kroneckerov niz [\dirac( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=\dirac(%20n%20)) impulsni odziv sustava. Smatrate da je to:

The correct answer is: **točno**.

Linearna konvolucija dva vremenski kontinuirana i KAUZALNA signala [x( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x(%20t%20)) i [y( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y(%20t%20)) konačne energije jest za [t\ge0](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=t\ge0) definirana izrazom:

The correct answer is: [x( t )*y( t )=\int_{0}^{t}x(\tau)y(t-\tau)\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x(%20t%20)*y(%20t%20)=\int_%7b0%7d%5e%7bt%7dx(\tau)y(t-\tau)\,d\tau) .

Odziv vremenski kontinuiranog sustava [S\bigl[u( t )\bigr]=\int_{t}^{+\infty}u( \tau )\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=S\bigl%5bu(%20t%20)\bigr%5d=\int_%7bt%7d%5e%7b+\infty%7du(%20\tau%20)\,d\tau) na Diracovu distribuciju [\dirac( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=\dirac(%20t%20)) je:

The correct answer is: [h( t )=\step( -t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h(%20t%20)=\step(%20-t%20)) .

Konvolucija [\delta( n-3 ) \ast x( n+1 ) \ast \delta( n+2 ) ](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=\delta(%20n-3%20)%20\ast%20x(%20n+1%20)%20\ast%20\delta(%20n+2%20)%20) je:

The correct answer is: [x( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x(%20n%20)) .

Linearna konvolucija dva vremenski diskretna signala [x( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x(%20n%20)) i [y( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y(%20n%20)) konačne energije je definirana izrazom:

The correct answer is: [x( n )*y( n )=\sum_{i=-\infty}^{+\infty}x(i)y(n-i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x(%20n%20)*y(%20n%20)=\sum_%7bi=-\infty%7d%5e%7b+\infty%7dx(i)y(n-i)) .

Konvolucija vremenski kontinuiranih signala konačne energije JEST asocijativna operacija!

The correct answer is: **točno**.

Konvolucija [\bigl(x( t )+y( t ) \ast \dirac(t+2t_0)\bigr) \ast \dirac(t-t_0)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=\bigl(x(%20t%20)+y(%20t%20)%20\ast%20\dirac(t+2t_0)\bigr)%20\ast%20\dirac(t-t_0)) je:

The correct answer is: [x(t-t_0)+y(t+t_0)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x(t-t_0)+y(t+t_0)) .

Konvolucijom dva vremenski diskretna jedinična skoka [\step( n ) \ast \step( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=\step(%20n%20)%20\ast%20\step(%20n%20)) dobivamo:

The correct answer is: [(n+1)\step( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=(n+1)\step(%20n%20)) .

Konvolucija [\bigl(\sin( t ) \ast \dirac(t+2)\bigr)\dirac(t-1)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=\bigl(\sin(%20t%20)%20\ast%20\dirac(t+2)\bigr)\dirac(t-1)) je:

The correct answer is: [\sin(3) \dirac(t-1)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=\sin(3)%20\dirac(t-1)) .

Samo jedno od navedenih svojstva jest svojstvo ASOCIJATIVNOSTI konvolucije vremenski kontinuiranih signala konačne energije! Koje? [x( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x(%20t%20)), [y( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y(%20t%20)) i [z( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=z(%20t%20))su vremenski diskretni signali dok je [T](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=T) realan broj.

The correct answer is: [x( t )*\bigl(y( t )*z( t )\bigr)=\bigl(x( t )*y( t )\bigr)*z( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x(%20t%20)*\bigl(y(%20t%20)*z(%20t%20)\bigr)=\bigl(x(%20t%20)*y(%20t%20)\bigr)*z(%20t%20)) .

Konvolucija [(a t+b) \ast \dirac(c t-t_0)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=(a%20t+b)%20\ast%20\dirac(c%20t-t_0)) ([t_0](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=t_0), [a](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=a), [b](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=b) i [c](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=c) su realne konstante, [t](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=t) je vrijeme) je:

The correct answer is: **Ništa od navedenoga**!.

Samo jedno od navedenih svojstva iskazuje postojanje NEUTRALNOG ELEMENTA za operaciju konvolucije vremenski diskretnih signala konačne energije! Koje? [x( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x(%20n%20)), [y( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y(%20n%20)) i [z( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=z(%20n%20)) su vremenski diskretni signali dok je [m](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=m) cijeli broj.

The correct answer is: [x( n )*\delta( n )=\delta( n )*x( n )=x( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x(%20n%20)*\delta(%20n%20)=\delta(%20n%20)*x(%20n%20)=x(%20n%20)) .

Konvolucija [\bigl(x( n )+y( n ) \ast \delta( n+5 )\bigr) \ast \delta( n-2 )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=\bigl(x(%20n%20)+y(%20n%20)%20\ast%20\delta(%20n+5%20)\bigr)%20\ast%20\delta(%20n-2%20)) je:

The correct answer is: [x( n-2 )+y( n+3 )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x(%20n-2%20)+y(%20n+3%20)) .

Linearna konvolucija dva vremenski kontinuirana i KAUZALNA signala [x( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x(%20t%20)) i [y( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y(%20t%20)) konačne energije jest za [t\ge0](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=t\ge0) definirana izrazom:

The correct answer is: [x( t )*y( t )=\int_{0}^{t}x(\tau)y(t-\tau)\,d\tau](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x(%20t%20)*y(%20t%20)=\int_%7b0%7d%5e%7bt%7dx(\tau)y(t-\tau)\,d\tau) .

Samo jedan od navedenih izraza jest definicija linearne konvolucija dva vremenski diskretna signala [x( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x(%20n%20)) i [y( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=y(%20n%20)) konačne energije. Koji?

The correct answer is: [x( n )*y( n )=\sum_{i=-\infty}^{+\infty}x(i)y(n-i)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x(%20n%20)*y(%20n%20)=\sum_%7bi=-\infty%7d%5e%7b+\infty%7dx(i)y(n-i)) .

Konvolucija [\delta( n-3 ) \ast x( n+1 ) \ast \delta( n+2 ) ](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=\delta(%20n-3%20)%20\ast%20x(%20n+1%20)%20\ast%20\delta(%20n+2%20)%20) je:

The correct answer is: [x( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x(%20n%20)) .

Konvolucija [\bigl(\sin( t ) \ast \dirac(t+2)\bigr)\dirac(t-1)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=\bigl(\sin(%20t%20)%20\ast%20\dirac(t+2)\bigr)\dirac(t-1)) je:

The correct answer is: [\sin(3) \dirac(t-1)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=\sin(3)%20\dirac(t-1)) .

Neki složeni vremenski kontinuirani sustav se sastoji od paralenog spoja dvaju linearnih vremenski stalnih sustava čiji impulsni odzivi su [h_1( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h_1(%20t%20)) i [h_2( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h_2(%20t%20)). Ako na ulaz u paralelnog spoja dovedemo signal [x( t )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x(%20t%20)) što ćemo dobiti na izlazu?

The correct answer is: [x( t )\ast\bigl(  h_1( t ) + h_2( t )\bigr)](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=x(%20t%20)\ast\bigl(%20%20h_1(%20t%20)%20+%20h_2(%20t%20)\bigr))

Odziv vremenski diskretnog sustava [S\bigl[u( n )\bigr]=\sum_{i=n}^{0}u( i )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=S\bigl%5bu(%20n%20)\bigr%5d=\sum_%7bi=n%7d%5e%7b0%7du(%20i%20)) na Kroneckerov impuls [\delta( n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=\delta(%20n%20)) je:

The correct answer is: [h( n )=\step( -n )](http://moodle.fer.hr/filter/tex/displaytex.php?texexp=h(%20n%20)=\step(%20-n%20)) .