vid#jas un efekt#vas v#rt#bas apr##ins

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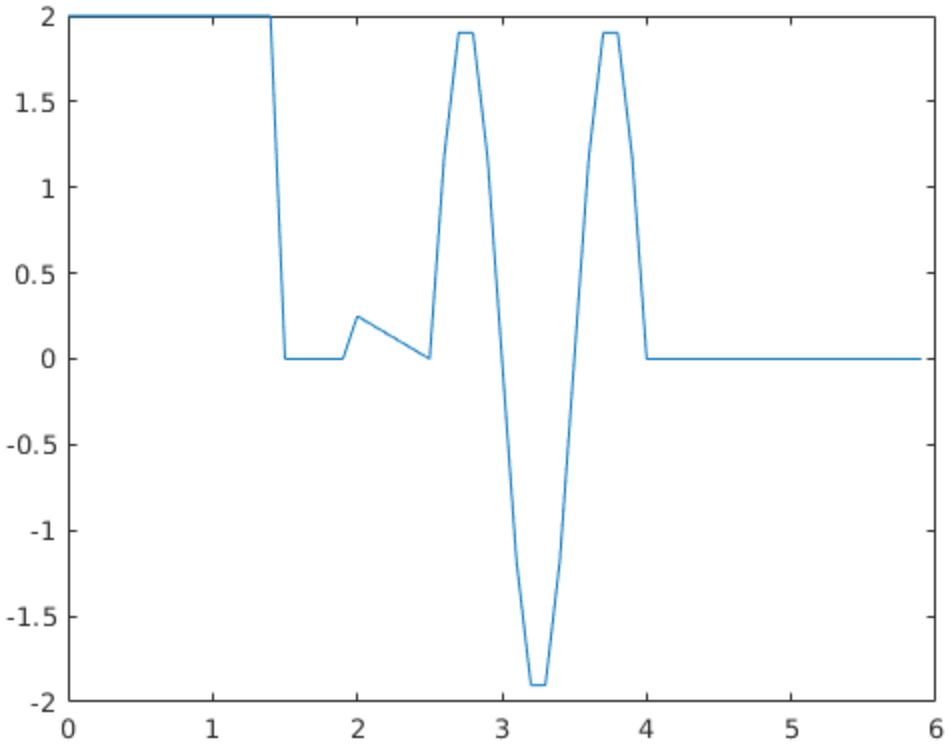
vid#jas v#rt#bas apr##ins

```
t = 0:0.1:6;
N = length(t);
```

- ar formulu 3a

```
xvid3a = 1/(N-1)*sum(sig(t(1:end-1)))
```

```
xvid3a =

    0.6151
```



- ar formulu 3b

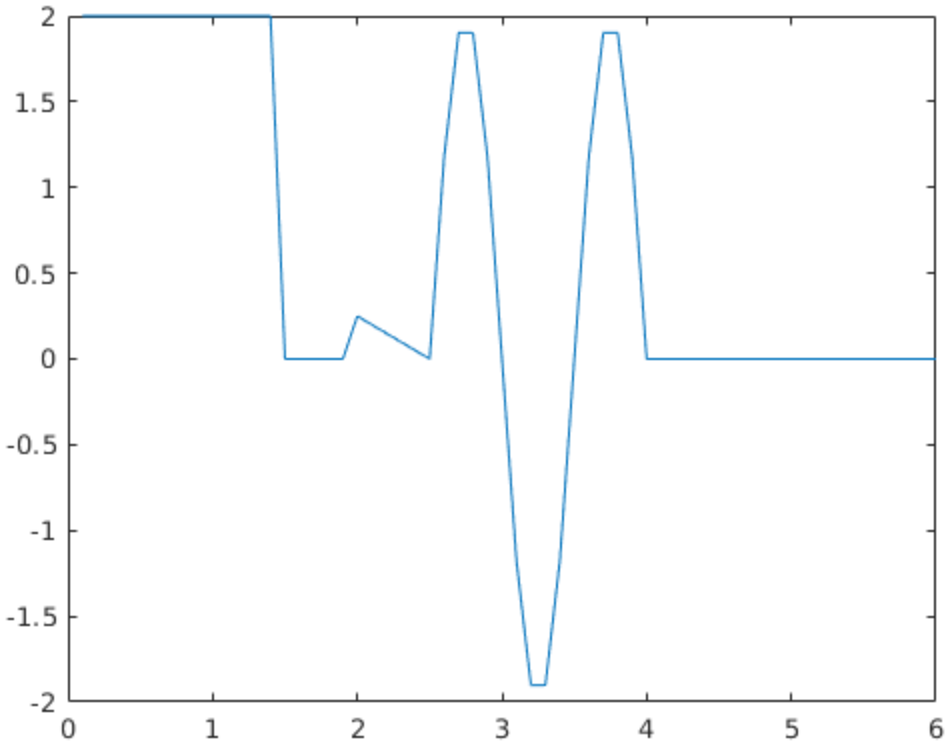
```
xvid3bb= 1/(N-1)*sum(sig(t(2:end)))
xvid3b = 1/(N-1)*sum(sig(t((1:end-1)+1)))
```

xvid3bb =

0.5818

xvid3b =

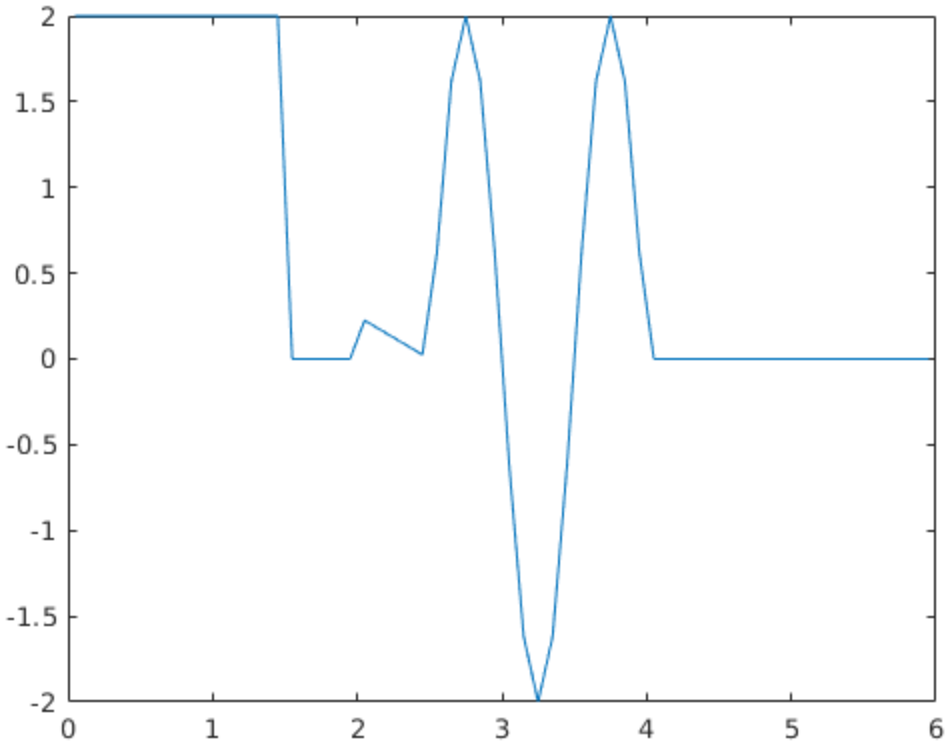
0.5818



- ar formulu 3c

```
h = (t(end)-t(end-1))
xvid3c = 1/(N-1)*sum(sig(t(1:end-1)+(h/2)))
```

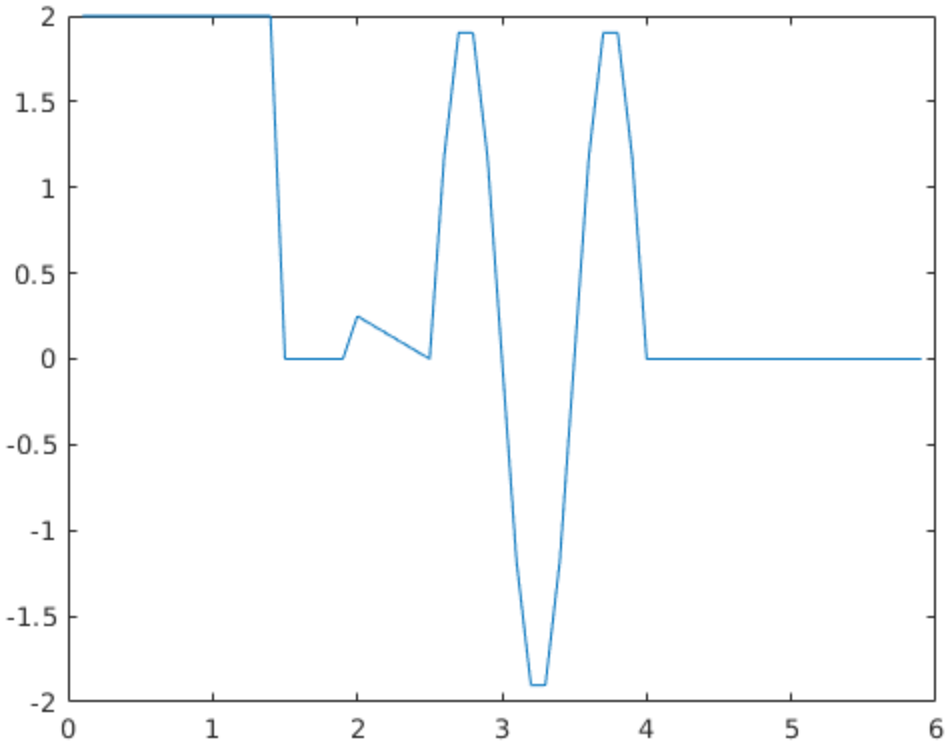
```
h =

    0.1000

xvid3c =

    0.6183
```



- ar formulu 4

```
xvid4 = 1/(N-1)*( (( sig(t(1))+sig(t(N)) )/2)+sum(sig(t(2:end-1))) )
```

```
xvid4 =

    0.5984
```



#st#s vid#jas v#rt#bas apr##ins

- sinusoida

```
syms t_sin
A0=0; A=2; T=(4-2.5)/1.5; f=1/T; delay = 2.5;
y_sin = A0+A*sin(2*pi*f*(t_sin-delay));
int_sin = int(y_sin,t_sin,2.5,4)
```

```
int_sin =

2/pi


*
```

```
syms t_saw
yA = 0; yB = 0.25; tA = 2.5; tB = 2; delay = 2.5;
k = (yA-yB)/(tA-tB);
y_saw = k*(t_saw-delay);
int_saw = int(y_saw,t_saw,2,2.5)
%y=sig(t);
%plot(t,y)
```

```
int_saw =
```

```
1/16
```

```
*
```

```
syms t_const
y_const=0;
int_const = int(0,t_const,4,6)
```

```
int_const =

0
```

- Liekam visu kopa

```
ista_vv=double(1/6*(int_const+int_saw+int_sin))
```

```
ista_vv =

    0.1165
```

salidzin#sim 3a formulu ar #sto vid#jo v#rt#bu

```
dt = [1 0.1 0.01 0.001];
xvid3am = [];
for dtc = dt
    t = 0:dtc:6;
    N = length(t);
    xvid3a = 1/(N-1)*sum(sig(t(1:end-1)))
    xvid3am = [xvid3am,xvid3a];
end
semilogx(dt,xvid3am,'-o',dt,dt*0+ista_vv)
```

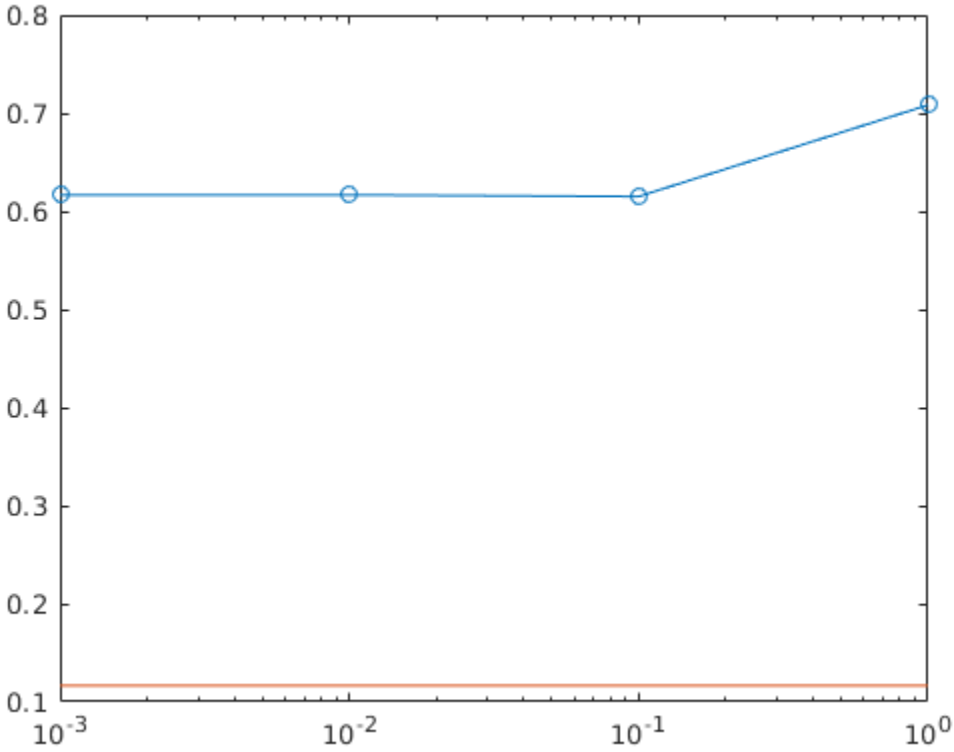
```
xvid3a =

    0.7083
```

```
xvid3a =

    0.6151
```

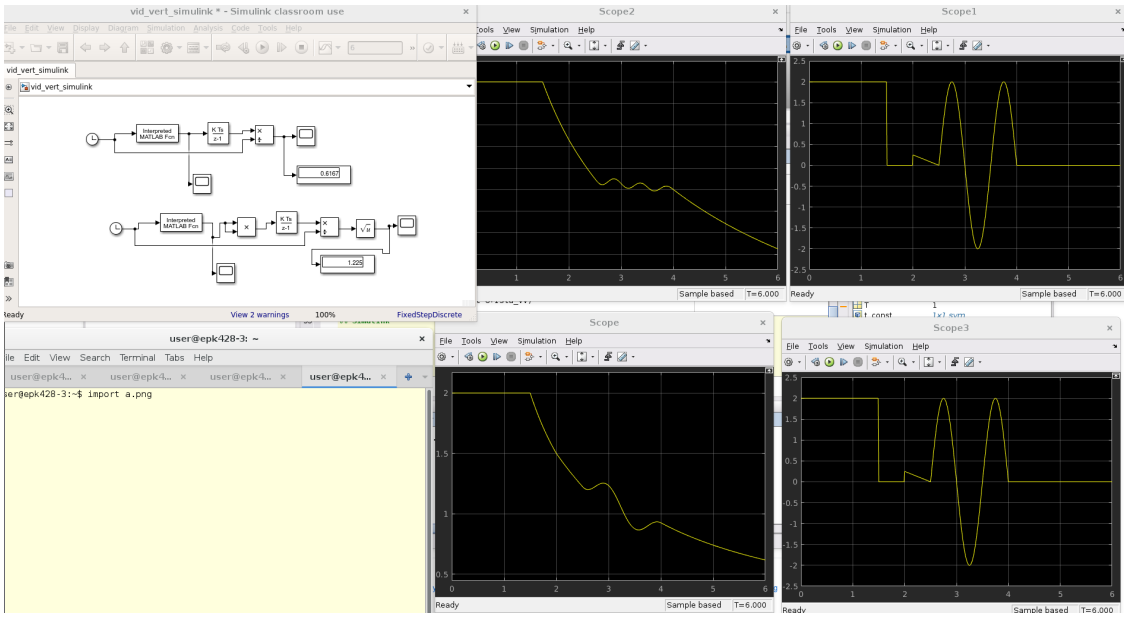
```
xvid3a =

    0.6167
```

```
xvid3a =
```

```
0.6165
```



Simulink



Piez#me

lai simulink palaistos vajadz#tu defin#t dt = 0.01 komandlog#

Secin#jumi:

```
% M#s ar dažadam MATLAB piejam atradam patiesu vid#ju un efekt#vu
 v#rt#bu
% savam individu#l#jam sign#lam no 3. LD.
% Izmantojot info par savu signalu, tiekam pie vid#jas v#rt#bas, p#c
 tam pie efekt#vas v#rt#bas.
% Ar cikla pal#dz#bu salidzin#jam 3a formulu ar #sto vid#jo v#rt#bu.
% K# ar# ar SIMULINK pal#dz#bu atradam savam signalam patiesu vid#ju
 un
% efekt#vu v#rt#bu, un ar# sign#la grafikus.
```

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