vid#j#s un efekt#v#s v#rt#bas apr##ins

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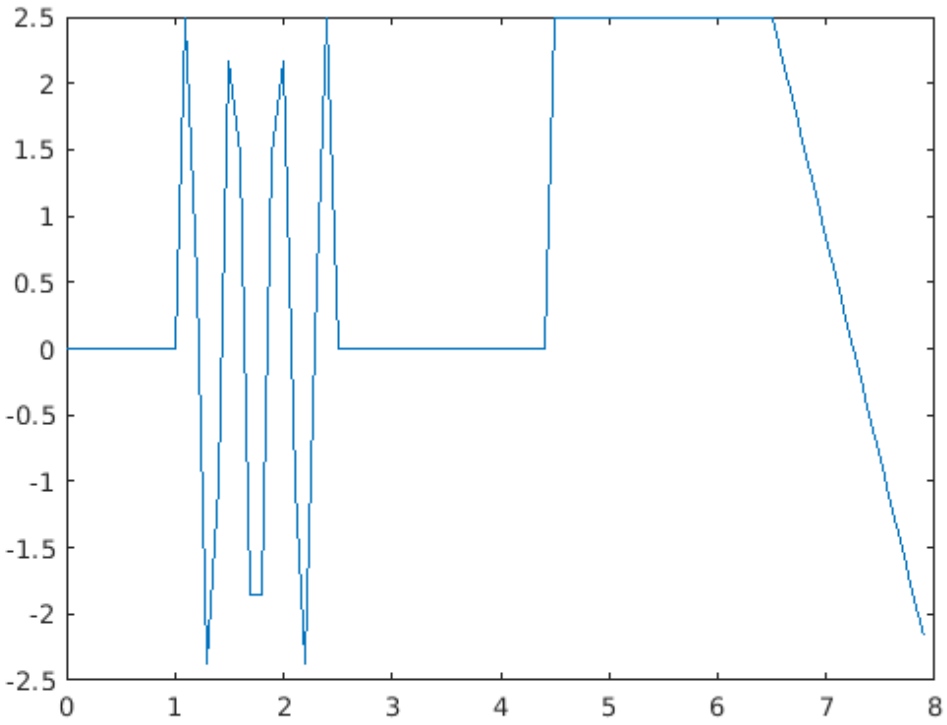
vid#j#s v#rt#bas apr##ins

```
t = 0:0.1:8;
N = length(t);
```

- ar formulu 3a

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

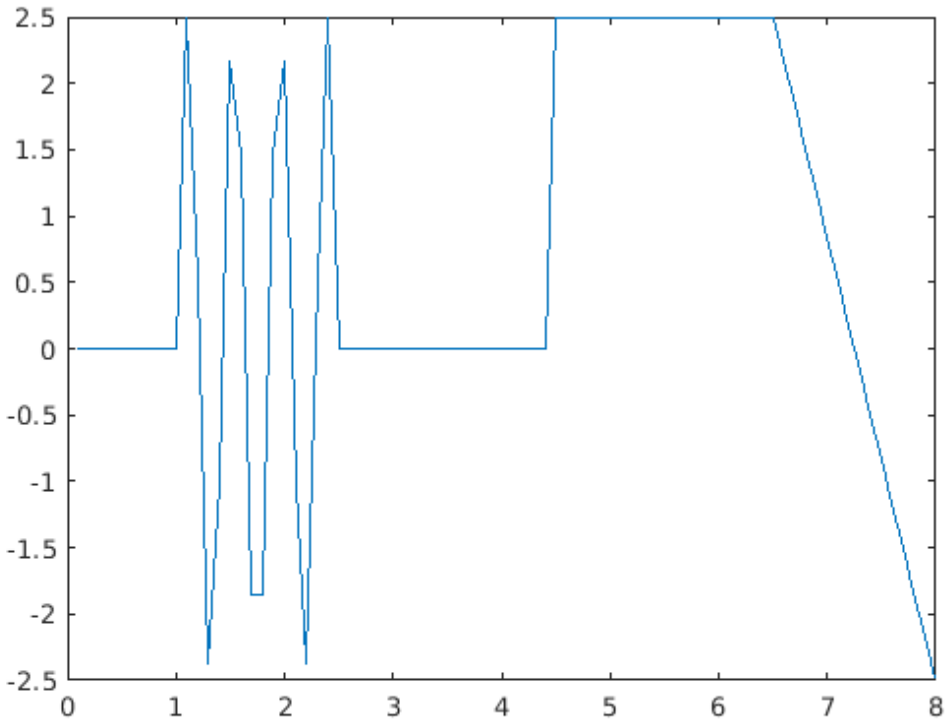
```
xvid3a =

    0.6910
```



- ar formulu 3b xvid3b=1/(N-1)*sum(sig(t(2:end)))

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

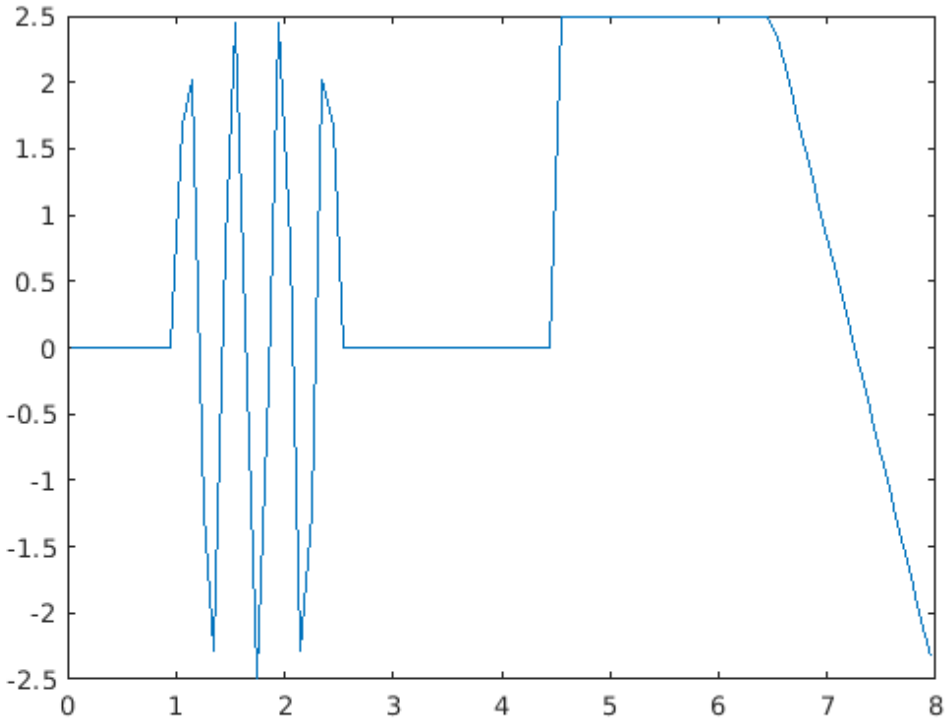
```
xvid3b =

    0.6597
```



- ar formulu 3c

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

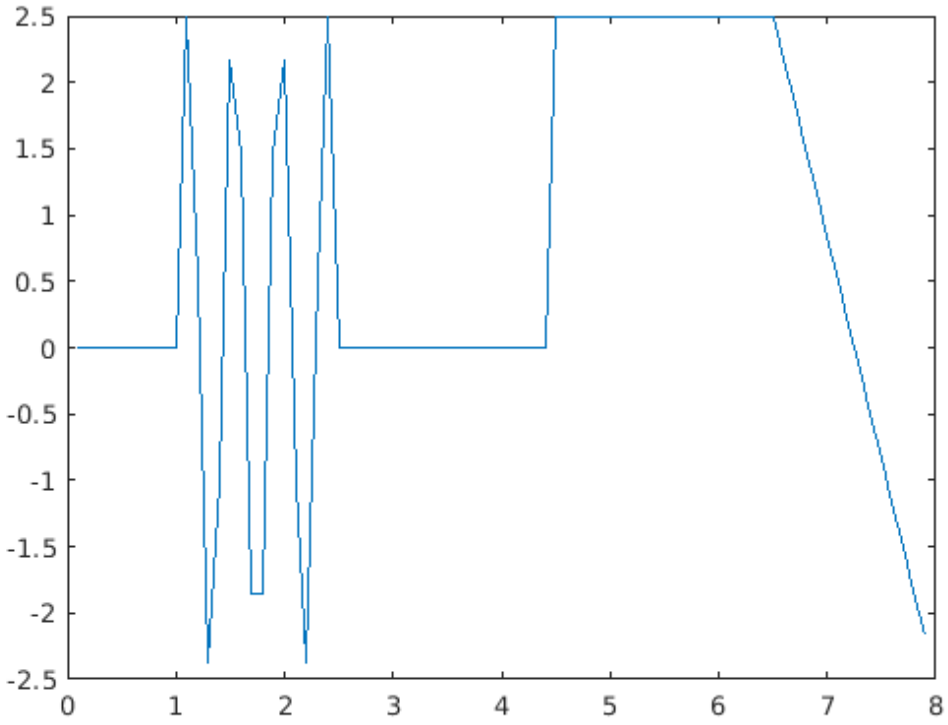
```
xvid3c =

    0.6717
```



- ar formulu 4

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

```
xvid4 =

    0.6753
```



#st#s vid#jas vertibas apr##ins

- sinusoida

```
syms t_sin
A0=0; A = 2.5; T = (2.5-1)/3.5; f = 1/T;
delay = 1;
y_sin = A0+A*sin(2*pi*f*(t_sin-delay));
int_sin = int(y_sin,t_sin,1,2.5)
```

```
int_sin =

15/(14*pi)
```

*

```
syms t_saw
k = (2.5-(-2.5))/(6.5-8);
delay = 7.25;
y_saw = k*(t_saw-delay);
int_saw = int(y_saw,t_saw,6.5,8)
```

```
int_saw =
```

```
0
```

```
*
```

```
syms t_const
y_const = 2.5;
int_const = int(2.5,t_const,4.5,6.5)
```

```
int_const =

5
```

Liekam visu kop#

```
ista_vv = 1/8*(int_const+int_saw+int_sin)
```

```
ista_vv =

15/(112*pi) + 5/8
```

Sal#dzin#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:8;
    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)
```

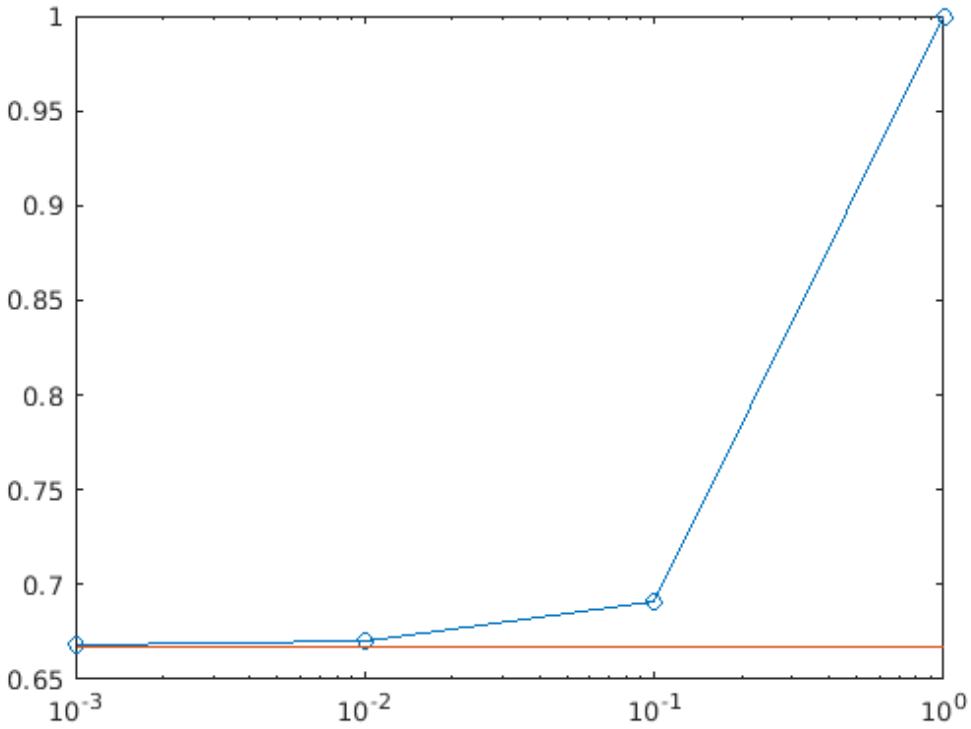
```
xvid3a =

    0.9998
```

```
xvid3a =

    0.6910
```

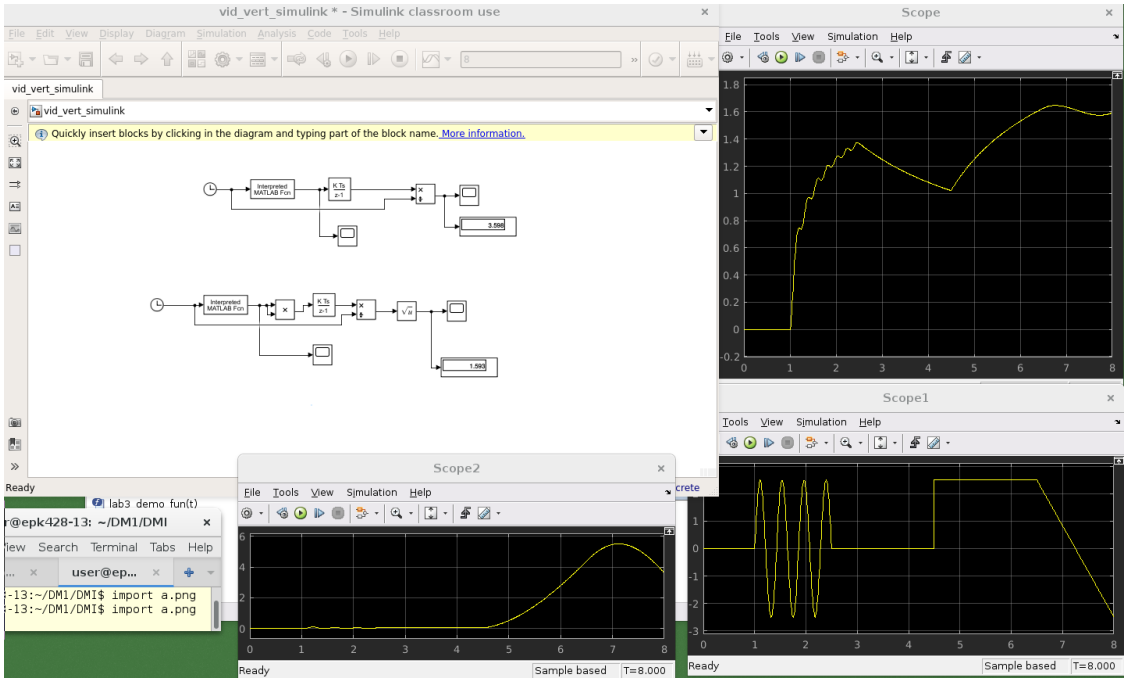
```
xvid3a =

    0.6707
```

```
xvid3a =
```

```
0.6679
```



Simulink



Piez#me

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

Secin#jumi:

Ar matlab ir iesp#jams apr##in#t vid#j#s v#rt#bas(laukumu) p#c daž#diem krit#rijiem un plotot to, k# ar# visu to pašu izdar#t ar simulink pal#dz#bu gan z#m#jumu, gan grafiku.

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