
Oleart y Chen

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Apartat a

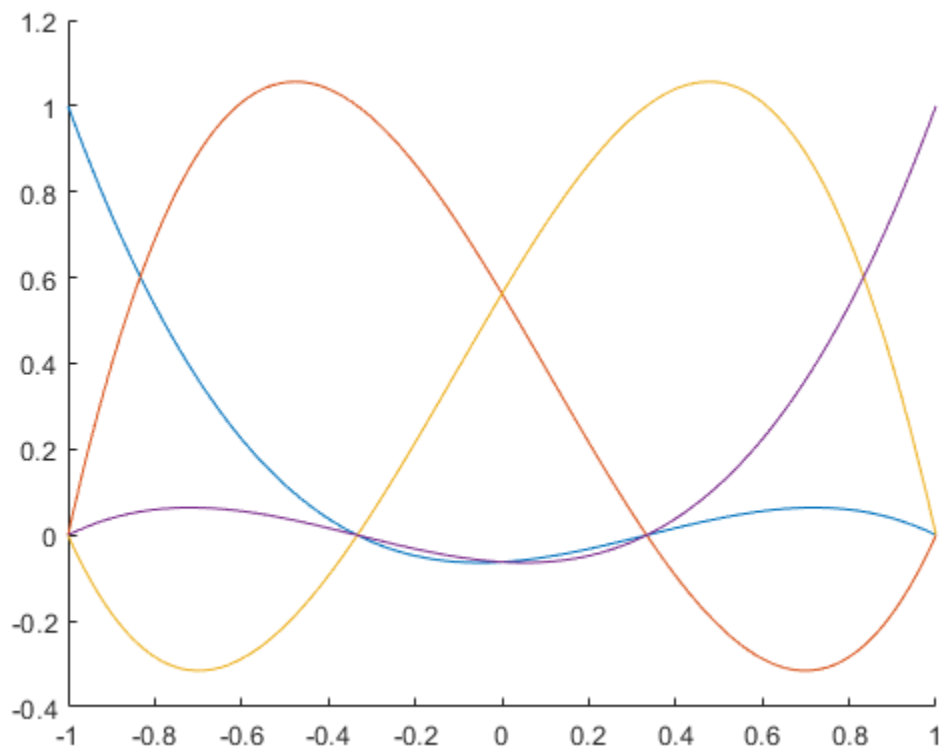
```
n=3;  
m = 600; %De prova
```

```
M = mat_lag(n, m);
```

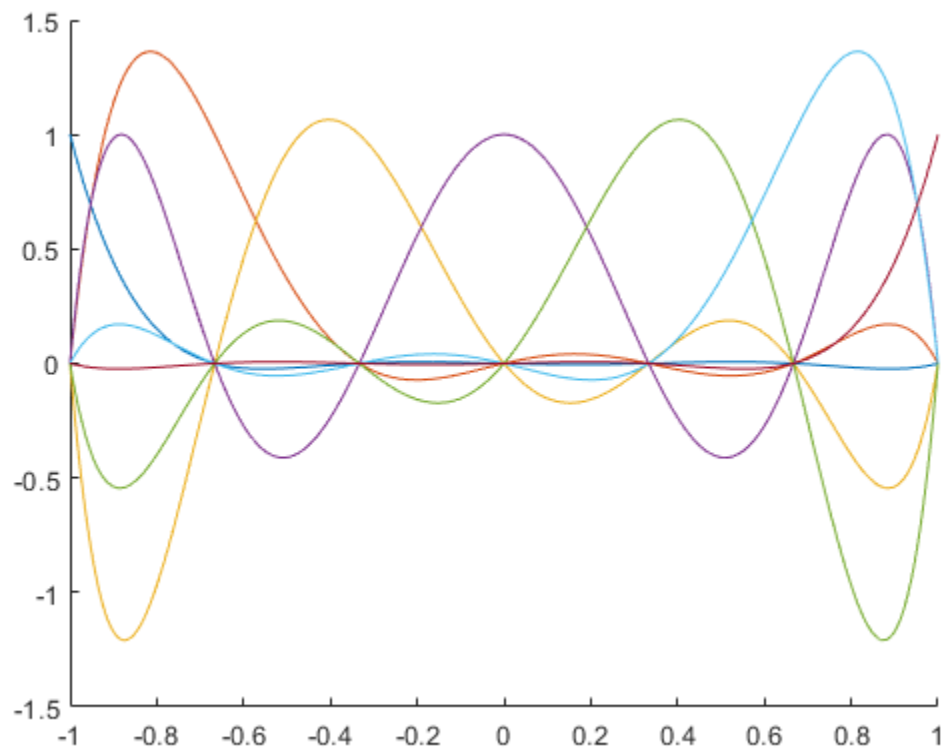
Apartat b

```
m = 600;
```

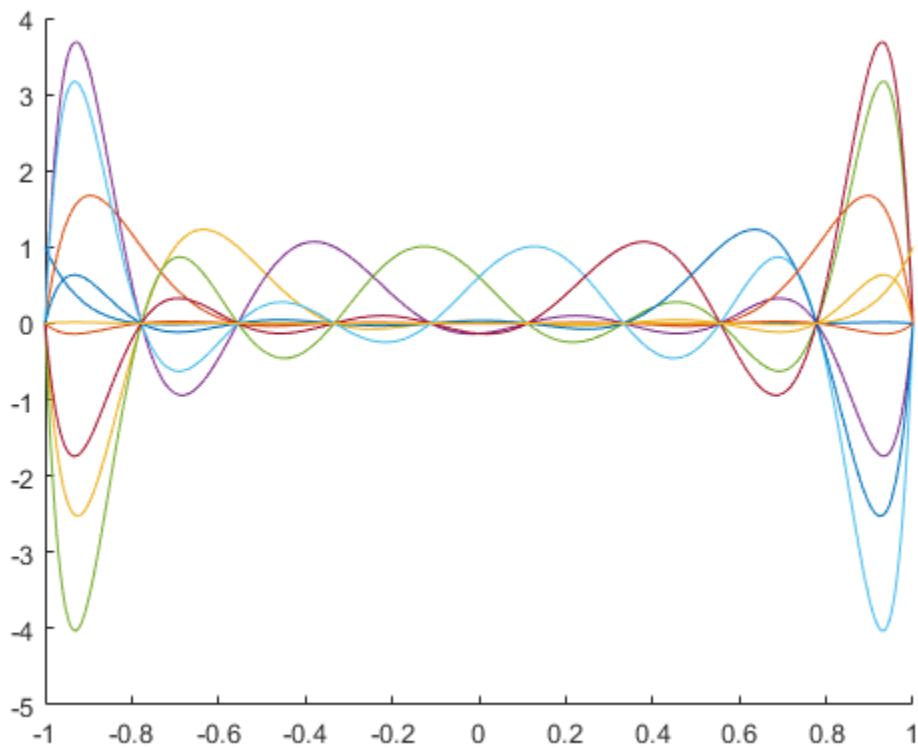
```
n=3;  
figure(1)  
plot_lag(n, m)  
hold off;
```



```
n = 6;  
figure(2)  
plot_lag(n,m)  
hold off;
```

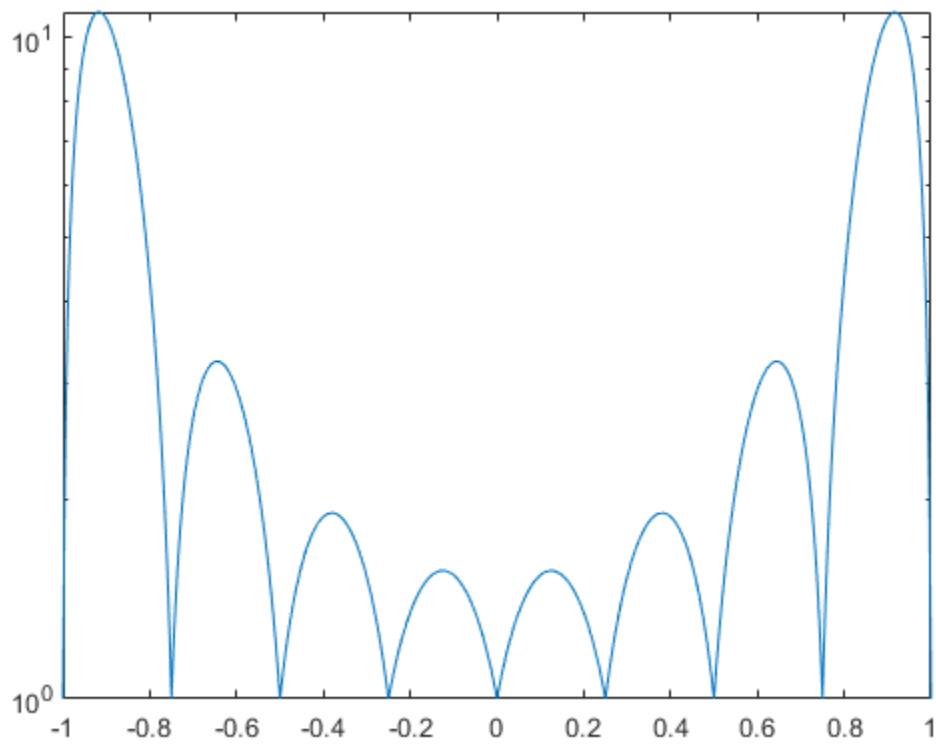


```
n = 9;  
figure(3)  
plot_lag(n,m)  
hold off;
```

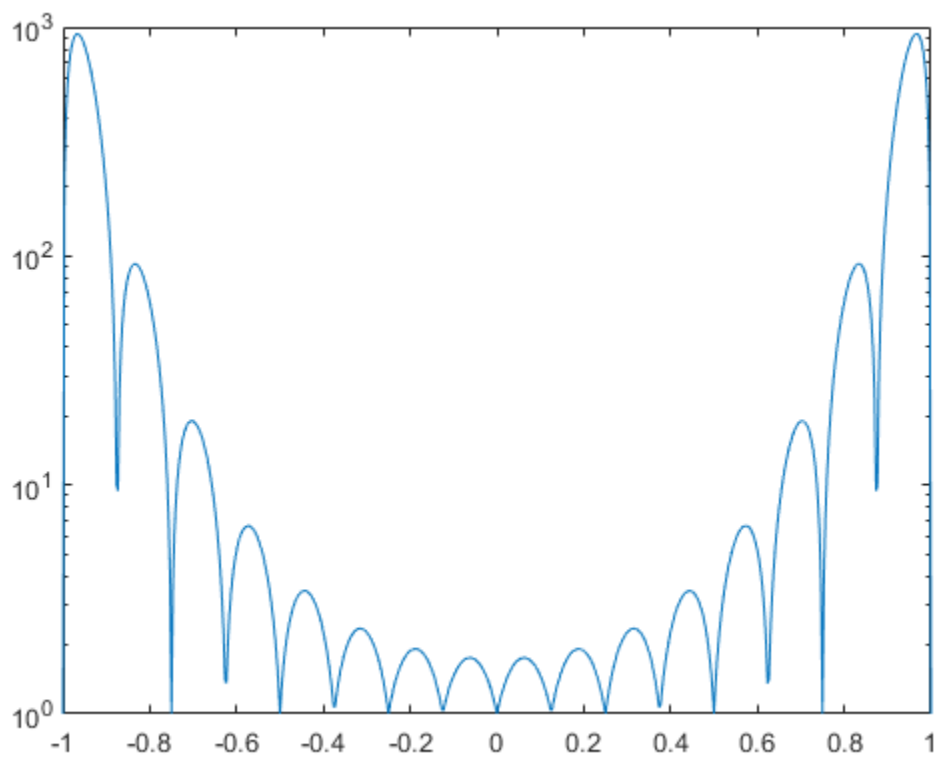


Apartat c

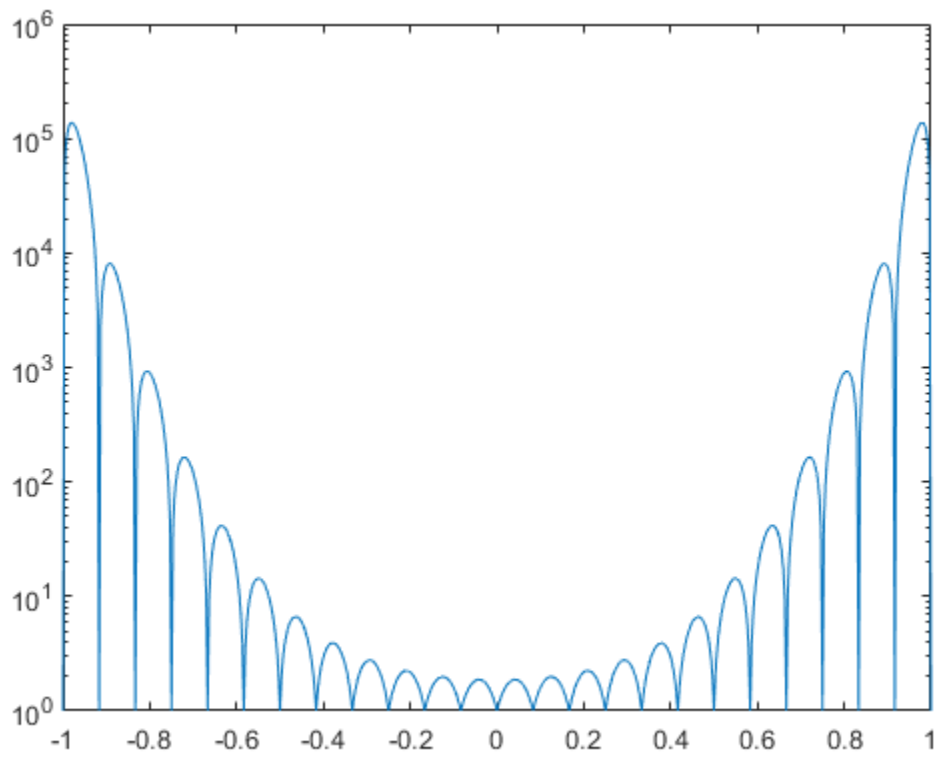
```
n = 8;  
M = mat_lag(n, m);  
leb = lebesgue(M);  
semilogy(z, leb)
```



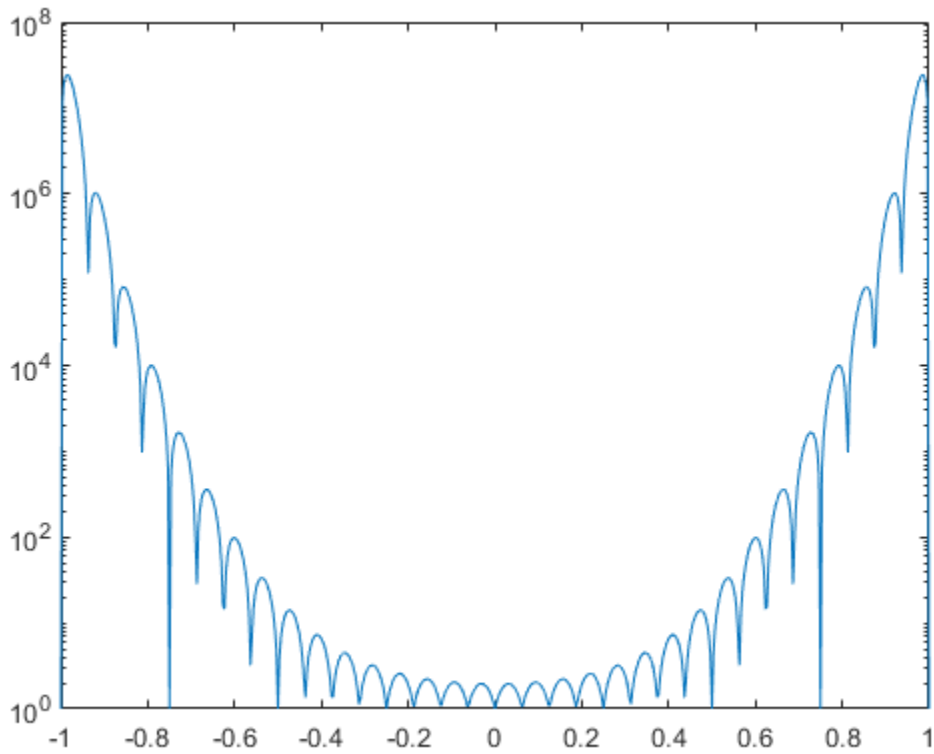
```
n = 16;  
M = mat_lag(n, m);  
leb = lebesgue(M);  
semilogy(z, leb)
```



```
n = 24;  
M = mat_lag(n, m);  
leb = lebesgue(M);  
semilogy(z, leb)
```

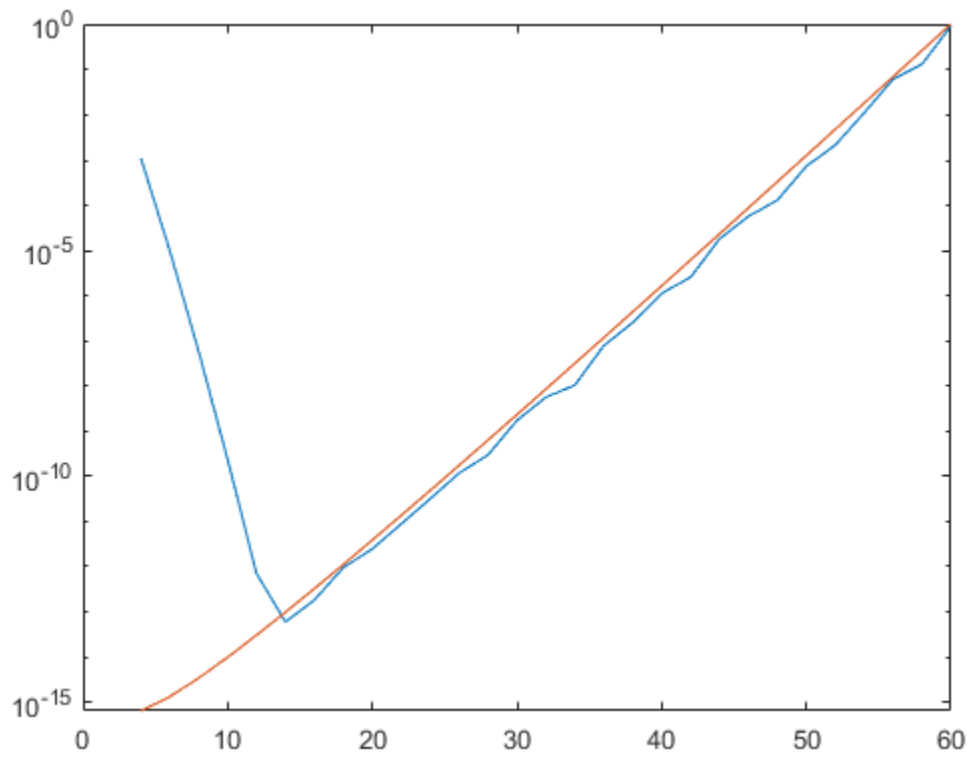


```
n = 32;  
M = mat_lag(n, m);  
leb = lebesgue(M);  
semilogy(z, leb)
```



Apartat d

```
z = generar_punts(m);  
fz_j = f(z);  
errors = [];  
for n = 4:2:60  
    x = generar_punts(n);  
    M = mat_lag(n, m);  
    fx_j = f(x);  
    prod = M*fx_j';  
    errors = [errors max(abs(fz_j - prod'))];  
end  
  
x = 4:2:60;  
semilogy(x, errors);  
hold on;  
semilogy(x, epsil*eps);
```

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