
Ex 6.2 b

Dag Lindbo, 2011

```
clear all, close all

% integranden
a = 0;
b = pi;

% plotta
x = linspace(a,b,100); area(x,func_6_2_b(x)), box off

% ett antal seteghalveringar
N = [30 60 120 240]';
T = zeros(4,1);

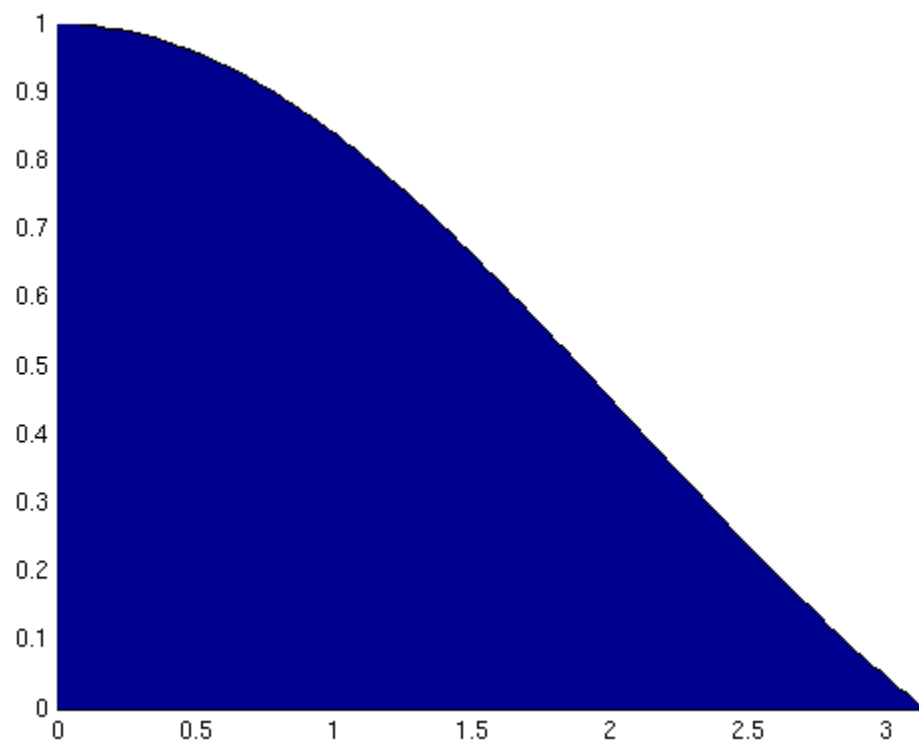
% approximationer till integralen
for j=1:4
    T(j) = trap_int(@func_6_2_b, a, b, N(j));
end

% simpson
S = zeros(3,1);
for j = 1:3
    S(j) = T(j+1) + (T(j+1)-T(j))/3;
end

% inspektera noggrannhet
fprintf('Trapets: \n')
fprintf('%d \t%.16f\n',[N T]')

fprintf('Simpson: \n')
fprintf('%d \t%.16f\n',[N(1:end-1) S]')
```

```
Trapets:
30      1.8516461429260900
60      1.8518643286274519
120     1.8519188713879973
240     1.8519325068491170
Simpson:
30      1.8519370571945726
60      1.8519370523081791
120     1.8519370520028235
```



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