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## Ex 6.2 a

Dag Lindbo, 2011

```
clear all, close all

% integranden
f = @(x) exp(x)./(1+2*x.^3);
a = 0;
b = 3;

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

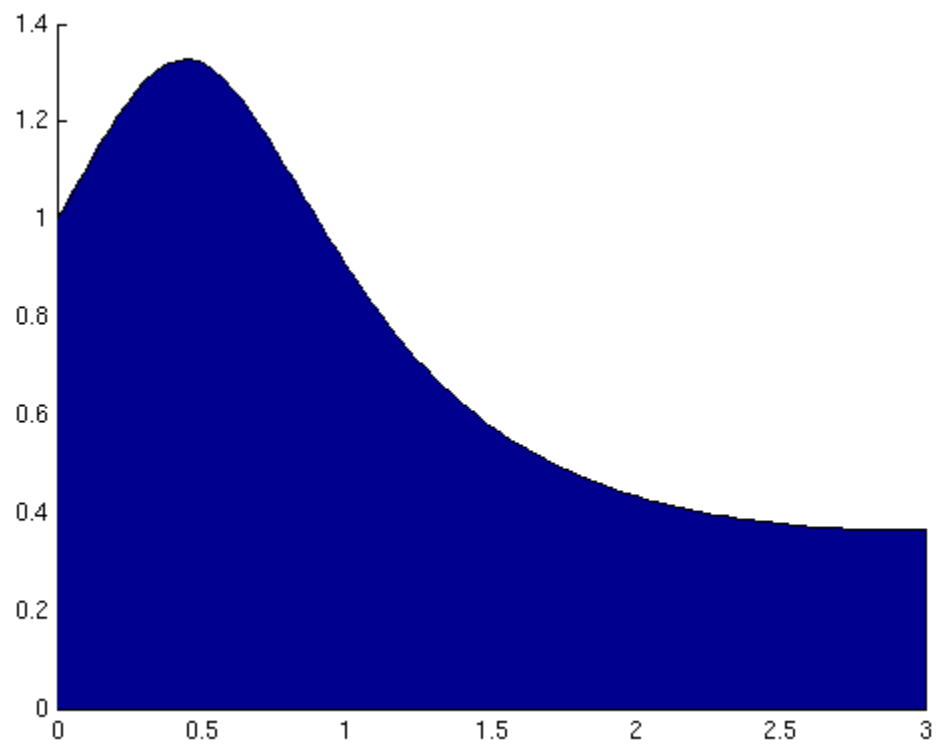
% ett antal seteghalveringar
N = [30 60 120 240]';
T = zeros(1,4)';

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

% inspektera noggrannhet
fprintf('%d \t%.16f\t%.16f\n',[N T [0; diff(T)]]')
```

|     |                    |                    |
|-----|--------------------|--------------------|
| 30  | 2.1694895687491211 | 0.0000000000000000 |
| 60  | 2.1701118391973808 | 0.0006222704482597 |
| 120 | 2.1702671406844134 | 0.0001553014870326 |
| 240 | 2.1703059493784576 | 0.0000388086940442 |



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