

```
%% Följande ar en utskrift av allt det vi gjorde i MATLAB under
%% föreläsningen.
%% Detta ar inget program, så det går inte att köra.
%% Det är endast en utskrift av det som hände i Matlabs
%% workspace under föreläsningen.
cos(1)
```

```
ans =
```

```
    0.5403
```

```
exp(1)
```

```
ans =
```

```
    2.7183
```

```
(4-1)^2
```

```
ans =
```

```
    9
```

```
ans
```

```
ans =
```

```
    9
```

```
14/(7*2)
```

```
ans =
```

```
    1
```

```
14/7*2
```

```
ans =
```

```
    4
```

```
31/17+9^2/2^3+sqrt(25)
```

```
ans =
```

```
    16.9485
```

```
format long % För att få 16 decimaler på skärmen
31/17+9^2/2^3+sqrt(25)
```

```
ans =
```

```
    16.948529411764707
```

```
format short % För att få tillbaka 4 decimaler på skärmen
31/17+9^2/2^3+sqrt(25)
```

```
ans =
```

```
16.9485
```

```
format long
```

```
ans
```

```
ans =
```

```
16.948529411764707
```

```
format short ans
```

```
{Error using <a href="matlab:helpUtils.errorDocCallback('format')"  
style="font-weight:bold">format</a>
```

```
Unknown command option.
```

```
}
```

```
% Man kan skriva flera kommandon på samma rad men man
```

```
% måste separera dessa med kommatecken annars blir det fel
```

```
format short, ans
```

```
ans =
```

```
16.9485
```

```
cos(3.14159)
```

```
ans =
```

```
-1.0000
```

```
%% Använd cosd när du jobbar med grader. cos gäller för radianer.
```

```
cosd(180)
```

```
ans =
```

```
-1
```

```
%% format rat kan man använda för bråk
```

```
1/5+7/8
```

```
ans =
```

```
1.0750
```

```
format rat
```

```
1/5+7/8
```

```
ans =
```

```
43/40
```

```
%% help är nyttigt att kunna om man vet vilket kommando man  
%% vill ha mer information om.
```

```
help format
```

```
Example:
```

```
format short, pi, single(pi)  
displays both double and single pi with 5 digits as 3.1416 while  
format long, pi, single(pi)  
displays pi as 3.141592653589793 and single(pi) as 3.1415927.
```

```
format, intmax('uint64'), realmax  
shows these values as 18446744073709551615 and 1.7977e+308 while  
format hex, intmax('uint64'), realmax  
shows them as ffffffffffffffff and 7fefffffffffffffff
```

```
respectively.
```

```
The HEX display corresponds to the internal representation of  
the value
```

```
and is not the same as the hexadecimal notation in the C  
programming  
language.
```

```
%% VARIABLE
```

```
a=5
```

```
a =
```

```
5
```

```
%% Man stänger av utskrift på skärmen med semikolon, ;
```

```
a=5;
```

```
a=5,b=5
```

```
a =
```

```
5
```

```
b =
```

```
5
```

```
a=5; b=5;
```

```
a+b
```

```
ans =
```

```
10
```

```

a+b;
c=a+b;
c
c =

    10
%% pi är en av fler fördefinierade variabler
pi
ans =

    3.1416

cos(pi)
ans =

    -1

%% Man kan definiera om variabeln pi, men man bör ej göra detta.
pi=4;
cos(pi)
ans =

   -0.6536

cos(pi)
ans =

   -0.6536

%% Kommandot clear tar bort en variabel (och dess värde) ur minnet
clear pi
pi
ans =

    3.1416
%% Kommandot whos listar de variabler som är
%% definierade och finns i minnet
whos

```

Name	Size	Bytes	Class	Attributes
A	1x1	8	double	
Cd	1x1	8	double	
Fd	1x1	8	double	
a	1x1	8	double	
ans	1x1	8	double	
b	1x1	8	double	
c	1x1	8	double	
rho	1x1	8	double	

```
v          1x1          8 double
```

```
clear a
```

```
whos % Nu har a försvunnit ur listan
```

Name	Size	Bytes	Class	Attributes
A	1x1	8	double	
Cd	1x1	8	double	
Fd	1x1	8	double	
ans	1x1	8	double	
b	1x1	8	double	
c	1x1	8	double	
rho	1x1	8	double	
v	1x1	8	double	

```
%% clear all tar bort alla variabler ur minnet!
```

```
clear all
```

```
whos
```

```
Inf % Infinity
```

```
ans =
```

```
Inf
```

```
8/0
```

```
ans =
```

```
Inf
```

```
0/0
```

```
ans =
```

```
NaN %% NaN betyder Not a Number
```

```
%% Den variabel som tilldelas ska ALLTID stå till vänster om =
```

```
a=5;
```

```
b=9;
```

```
a+b=c
```

```
  a+b=c
```

```
  |
```

```
{Error: The expression to the left of the equals sign is not  
a valid target for an assignment.
```

```
}
```

```
c=a+b
```

```
c =
```

```
%% Uppgift 4 - provuppgift
```

```
%% A.
```

```
a=6;
```

```
b=3;
```

```
c=a/2-b
```

```
c =
```

```
0
```

```
%% B.
```

```
a=10;
```

```
b=a;
```

```
c=3*(a+b)
```

```
c =
```

```
60
```

```
c=c-a
```

```
c =
```

```
50
```

```
%% C.
```

```
H=10;
```

```
L=5;
```

```
c=h*L
```

```
{Undefined function or variable 'h'.
```

```
}
```

```
%% Här kör vi Matlab-programmet Uppg6.m
```

```
%% (notera att när man kör programmet
```

```
%% skriver man namnet UTAN .m
```

```
Uppg6
```

```
Cd = 4000000N/m
```

```
diary off
```