

REVIEW SESSION:

Switch and case:

In m-file:

```
animal = 'ape';  
horse = 'zebra';  
switch(animal)  
    case{horse,'goat'}  
        disp('hi')  
    case{'ape','snake'}  
        disp('bye')  
    otherwise  
        disp('hola')  
end
```

After execution:

bye

Input/output:

In m-file:

```
% Make a data file  
a = [3 , 1, 1, -1 ; 4, 3, 2, 1];  
fprintf('%7.2f %7.2f %7.2f %7.2f\n', a)  
fileid = fopen('output.txt','w');  
fprintf(fileid,'%7.2f %7.2f %7.2f %7.2f\n', a)  
fclose(fileid);
```

% Read from the data file, then print the data

```
fileid = fopen('output.txt');  
b = fscanf(fileid,'%f', [4,2])  
fclose(fileid);  
fprintf('%7.2f %7.2f %7.2f %7.2f\n', b)
```

After execution:

```
3.00  1.00  1.00 -1.00  
4.00  3.00  2.00  1.00  
3.00  4.00  1.00  3.00  
1.00  2.00 -1.00  1.00
```

Functions:

In m-file:

```
cheese = @(z,m) z^2 + m;  
a = 2; b = 5;  
x = addy(a,b);  
cheese(addy(a,b),b)
```

In addy.m:

```
function [ ans ] = addy (x,y)  
ans = x + y;  
endfunction
```

After execution:

54

Plotting:

```
x = (0:1:20);  
y = x.^2;  
z = x.^3
```

```
plot(x,y,'-ro' , x,z,'-gx')  
xlabel('my xlabel')
```

```
plot(x,y,'-ro')  
hold on  
plot(x,z,'-gx')  
xlabel('my xlabel')  
hold off
```

```
subplot(1,2,1)  
plot(x,y,'-ro')  
subplot(1,2,2)  
plot(x,y,'-gx')
```

Binary Code:

Binary code – This is a base 2 counting system.

$$110110 = 32 + 16 + 0 + 4 + 2 + 0 = 54$$

54 is the decimal (base 10) representation of 110110 in the binary (base 2) counting system.