

## Matlab/Freemat: Conditional Branches: IF

Logical statements that are used control the flow of code; if a condition is true then do something, if it isn't then do something else.

### If statement

In the following code the statement 'greater than 10' is output if  $x > 10$ .

```
--> x=5
x =
5
--> if (x>10) 'greater than 10'
end                                -->
x=15
x =
15
--> if (x>10) 'greater than 10'
end
ans =
greater than 10
```

### If elseif statement

By using the if-elseif statement, two or more branches in the code can be designed. In the following code a grade of A, B, C or F is given depending on the mark.

```
--> mark=60
mark =
60
--> if (mark>70)
'A'
elseif (mark>55)
'B'
elseif (mark>40)
'C'
else
'F'
end
ans =
M
```