

More Programming Constructs

Math 426

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August 31, 2020

elseif

Used for potentially executing an alternative block of code when a `if` condition fails.

Example

```
1 v = [-1,0,1];
2 for k = 1:length(v)
3     disp(k)
4
5     if v(k)<0
6         disp("negative")
7     elseif v(k)>0
8         disp("positive")
9     else
10        disp("zero!")
11    end
```

elseif

Used for potentially executing an alternative block of code when a `if` condition fails.

Output

```
-1
```

```
negative
```

```
0
```

```
zero!
```

```
1
```

```
positive
```

break

Used for terminating a loop early.

Example

```
1 v = [-1,0,1];
2 found = 0;
3 for k=1:length(v)
4     disp k
5     if v(k) == 0
6         found = 1;
7         break
8     end
9 end
10
11 if found == 0
12     disp("sadly , no zeros")
13 else
14     disp("Yay! Found zero!")
15 end
```

break

Used for terminating a loop early.

Output

1

2

Yay! Found zero!

while

Iterates a loop as long as a condition holds.

Example

```
1 x = 1971;  
2 z = 1;  
3  
4 while z < x;  
5     z = z * 10;  
6 end  
7 disp(x)  
8 disp(z)
```

while

Iterates a loop as long as a condition holds.

Output

1971

10000