

For loops

Created using Maple 14.01

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```
> restart;
with(StringTools) :
FormatTime("%m-%d-%Y, %H:%M");
"08-06-2012, 22:25" (1)
```

Here is a simple for loop

```
> for i from 1 to 10 do;
    i;
end do;
1
2
3
4
5
6
7
8
9
10 (2)
```

Here's another simple example where the index i is incremented by 2 rather than the default 1.

```
> for i from 1 to 10 by 2 do;
    i;
end do;
1
3
5
7
9 (3)
```

Often you may want to append the results from a calculation in a **for** loop to a list. Here's one way to do it.

First, note that *NULL* can be used to create an empty variable.

```
> listA := NULL;
listA := (4)

> for i from 1 to 10 by 2 do;
    listA := listA, i;
end do;
listA := [listA];
listA := 1
listA := 1, 3
listA := 1, 3, 5
```

```
listA := 1, 3, 5, 7
listA := 1, 3, 5, 7, 9
listA := [1, 3, 5, 7, 9] (5)
```

The output of the **for** loop can be suppressed by putting a colon after the **end do** statement

```
> listA := NULL :
for i from 1 to 10 by 2 do;
  listA := listA, i :
end do:
listA := [listA];
listA := [1, 3, 5, 7, 9] (6)
```

Sometimes you may want to suppress most, but not ALL of the **for** loop output. The **print** command can be used to display the parts that you want to see.

```
> listA := NULL :
listB := NULL :
for i from 1 to 10 by 2 do;
  listA := listA, i :
  j := i2 :
  print(j) :
  listB := listB, j :
end do:
listA := [listA];
listB := [listB];
1
9
25
49
81
listA := [1, 3, 5, 7, 9]
listB := [1, 9, 25, 49, 81] (7)
```