Looping and Counting

Computers do looping by counting.

There are four main types of loops in the True BASIC programming language.

1. For-Next Loop
2. Do-Until Loop
3. Do-While Loop
4. Infinite Do-Loop

The number of times a loop completes is based on a counter. The counter is tested until it fails.

Rem **For-Next Loop**

For counter = 1 to 10

Print counter;

Next counter

End

Rem Output:

Rem 1 2 3 4 5 6 7 8 9 10

```
Rem Do-Until Loop

    Let counter = 0

    Do Until counter = 10

        Let counter = counter + 1

        Print counter;

    Loop

End

Rem Output:

Rem 1 2 3 4 5 6 7 8 9 10
```

Rem **Do-While Loop**

Let counter = 0

Do While counter < 10

Let counter = counter + 1

Print counter;

Loop

End

Rem Output:

Rem 1 2 3 4 5 6 7 8 9 10

Rem **Infinite Do Loop**

Let counter = 0

Do

Let counter = counter + 1

Print counter;

Loop

End

Rem Output:

Rem 1 2 3 4 5 6 7 8 9 10 11 12 ...

Conclusions

Computers use counters to control loops.

In the for-next loop, the counter is tested by "for".

In the do-until loop, the counter is tested by "until".

In the do-while loop, the counter is tested by "while".

In the infinite do-loop, the counter is not tested which makes the loop endless.