

// Pre-test Loop with a counter – Gaddis page 171

```

Declare Integer counter
counter = 1
While (counter <=12)
    // code inside loop goes here
    counter = counter + 1
End While

```

Types of Loops:

1. While.... End While
2. Do... While
3. For.... End For

// Post-test Loop with a counter – Gaddis page 180

```

Declare Integer counter
counter = 1
Do
    // code inside loop goes here
    counter = counter + 1
While (counter <=12)

```

// A Keep Going Loop (or a wantsToContinue loop) – Gaddis page 173

```

Declare Boolean keepGoing
keepGoing = true
Do
    // code inside loop goes here
    keepGoing = getYorN ("Keep going? (y or n)")
While (keepGoing)

```

```

//or a better way with less coding is:
//While (getYorN ("Keep going? (y or n)");

```

// A Keep Going Loop (or a wantsToContinue loop) – Gaddis page 173

```

Do
    // code inside loop goes here
While (getYorN ("Keep going? (y or n)"))

```

// Pre-test Loop with input

```

Declare Real data
data = getReal ("Please enter a positive number.")
While (data > 0)
    // code inside loop goes here
    data = getReal ("Please enter a positive number.")
End While

```

// For Loop – Gaddis page 191

Declare Integer counter

For counter = 1 to 12

 // code inside loop goes here

End For

// Examples of For Loops: Pseudocode and Java

For month = 1 to 12 Step 1

for (int month = 1; month < 13; month++) {

 For day = 1 to 12

 for (int day = 1; day < days_in_year; day++) {

For empNbr = 0 to nbrOfEmps

for (int empNbr = 0; empNbr < nbrOfEmps ; empNbr++) {

For orcs = nbrOfOrcs to 0 Step -1

for (int orcs = nbrOfOrcs ; orcs > 0; orcs--) {

// Nested For Loops – Gaddis page 215

Declare Integer month, year

For year = 2016 to 2026

 For month = 1 to 12

 // code inside loop goes here

 End For

End For

// Nested For Loops – Gaddis page 215

Declare Integer seconds, minutes, hours

For hours = 0 to 23

 For minutes = 0 to 59

 For seconds = 0 to 59

 // move second hand

 End For

 // move minute hand

 End For

 // move hour hand

End For