Examples of the Repeat form

Outline (or skeleton)

```
Repeat
   Actions, if any
   Before the exit
ExitOn  Condition
   Actions, if any
   After the exit
EndRepeat
```

```
-- Remainder when x divides y
   Set rem = y -- numerator
   Set den = x -- denominator

   Repeat
   ExitOn (rem < den)
      Set rem = rem - den
   EndRepeat

   Output “The remainder is “
   Outputln rem
```

```
-- Factorial of n: increasing
   Set fact   = 1
   Set index  = 1

   Repeat
   ExitOn (index > n)
      Set fact = fact * index
      Inc index by 1
   EndRepeat

   Output “Factorial is “
   Outputln fact
```

```
-- Factorial of n: decreasing
   Set fact   = 1
   Set index  = n

   Repeat
   ExitOn (index == 1)
      Set fact = fact * index
      Dec index by 1
   EndRepeat

   Output “Factorial is “
   Outputln fact
```

```
-- Enter proper (positive) input
   Set YearNow = 1999

   Repeat
      Output "Enter your age "
      Input age
      Outputln age
   ExitOn (age >= 0)
      Outputln "Error in age "
   EndRepeat

   Output  "You were born in "
   Outputln (YearNow - age)
```

```
-- Compound Growth Table
   Set amount = 1.0
   Set rate = 0.09
   Set time = 1

   Repeat
      Set growth = amount * rate
      Set amount = amount + growth
      Output IntToStr (time) + “ “
      Outputln amount
      Inc time by 1
   ExitOn (time == 9)
   EndRepeat
```

```
-- Average many real values
-- many is a given (input) int
   Set sum = 0.0 -- real value
   Set num = 0   -- int count

   Repeat
      Output "Enter value "
      Input value
      Outputln value
      Set sum = sum + value -- Inc
      Inc num by 1
   ExitOn (num == many)
   EndRepeat

   Output "The mean is "
   Outputln sum / IntToReal (num)
```

```
-- Average many real values
-- ending with negative terminator
   Set sum = 0.0 -- real value
   Set num = 0   -- int count

   Repeat
      Output "Enter value "
      Input value
   ExitOn (value < 0.0)
      Outputln value
      Set sum = sum + value -- Inc
      Inc num by 1
   EndRepeat

   Output "The mean is "
   Outputln sum / IntToReal (num)
```