



From the Areas below, choose any functions that are not in Utilities then delete the Areas

$$2^{16} = 65536$$

$$N := 9.9 \cdot 10^7$$

```

ftest(N, φ) :=
  v_N ← 0
  M ← [ v ]
        [ v ]
        [ v ]
  M ← [ seq(N) ]
        [ N ]
        [ seq(N) ]
        [ N ] + 1
        [ seq(N) ]
        [ N ] + 10
  for k ∈ 0..rows(M_0) - 1
  [ y_k ← (M_1)_k · cos(φ) - (M_2)_k · sin(φ) ]
  [ z_k ← (M_1)_k · sin(φ) + (M_2)_k · cos(φ) ]
  [ M_0 y z ]^T
  
```

$$ftest(N, 0.2)^T = \begin{bmatrix} 0 \\ 1.01 \cdot 10^{-8} \\ 2.02 \cdot 10^{-8} \\ 3.03 \cdot 10^{-8} \\ 4.04 \cdot 10^{-8} \\ 5.051 \cdot 10^{-8} \\ 6.061 \cdot 10^{-8} \\ 7.071 \cdot 10^{-8} \\ 8.081 \cdot 10^{-8} \\ 9.091 \cdot 10^{-8} \\ 1.01 \cdot 10^{-7} \\ 1.111 \cdot 10^{-7} \\ \vdots \end{bmatrix} \begin{bmatrix} -1.007 \\ -1.007 \\ -1.007 \\ -1.007 \\ -1.007 \\ -1.007 \\ -1.007 \\ -1.007 \\ -1.007 \\ -1.007 \\ -1.007 \\ -1.007 \\ \vdots \end{bmatrix} \begin{bmatrix} 9.999 \\ 9.999 \\ 9.999 \\ 9.999 \\ 9.999 \\ 9.999 \\ 9.999 \\ 9.999 \\ 9.999 \\ 9.999 \\ 9.999 \\ 9.999 \\ \vdots \end{bmatrix}$$

$$ftest3(M, 0.2)^T = ?$$