PROGRAM nasmult
PARAMETER (n = 1024)
DOUBLE PRECISION, ARRAY(n,n) :: x, y, z, x1, y1
INTEGER iskew(n)
x = 2.0
y = 3.0
z = 0.0

c Multiply two square matrices x and y using Cannon’s algorithm
    FORALL (i=1:n) iskew(i) = i - 1
    x1 = CSHIFT( x, 2, iskew )
    y1 = CSHIFT( y, 1, iskew )
    z = 0.0d0
    DO ( n ) TIMES
        z = z + x1 * y1
        x1 = CSHIFT( x1, 2, 1 )
        y1 = CSHIFT( y1, 1, 1 )
    ENDDO
    PRINT *, z(1, 1), Z(n, n)
    z = 0.0d0

    c Multiply two square matrices x and y using Fortran 90 library
    z = MATMUL(x, y)
    PRINT *, z(1, 1), z(n, n)
    END