

1、 Good (15/15)

Main.f90

选择OpenSSH SSH client

```
Program Main

implicit none

integer :: u, i, j
real(4), dimension(5,3) :: m
real(4), dimension(3,5) :: n
real(4), dimension(5,5) :: Res

u = 50

open(unit = u, file='M.dat', status = 'old')

do i = 1, 5
    read(u, *) M(i, 1), M(i, 2), M(i, 3)
enddo
close(u)

u = 55

open(unit = u, file='N.dat', status = 'old')

do i = 1, 3
    read(u, *) N(i, 1), N(i, 2), N(i, 3), N(i, 4), N(i, 5)
enddo
close(u)

call Matrix_mutip(M, N, Res)

u = 65
open(unit = u, file = 'MN.dat', status = 'replace')
do i = 1, 5
    write(u, '(f9.2, f9.2, f9.2, f9.2, f9.2)') Res(i, 1), Res(i, 2), Res(i, 3), Res(i, 4), Res(i, 5)
enddo

End Program Main
```

using '(5f9.2)' is ok.

Matrix_mutip.f90

```
subroutine Matrix_mutip(m, n, res)
  implicit none
  integer :: i, j, k
  real(4), dimension(5,3)::M
  real(4), dimension(3,5)::N
  real(4), dimension(5,5)::Res
  real(4) ::temp

  do i = 1, 5
    do j = 1, 5
      temp = 0.
      do k = 1, 3
        temp = temp + (m(i, k) * n(k, j))
      enddo
      res(i, j) = temp
    enddo
  enddo
end subroutine Matrix_mutip
```

```
[ese-zhangyx@login03 fortran_demo1]$ [ese-zhangyx@login03 fortran_demo1]$ gfortran Main.f90 Matrix_mutip.f90 -o Main.x
[ese-zhangyx@login03 fortran_demo1]$ ./Main.x
[ese-zhangyx@login03 fortran_demo1]$ ls
! DoWhileTest.f90 HelloWorld.x Main.f90 M.dat PrecisionTest.f90 TestLeapYear.x Variab
DoLoopTest.f90 fortran_demo2 IfElseTest.f90 Main.x MN.dat TestArray.f90 TestRelationalOps.f90
DoLoopTest.x HelloWorld.f90 ImplicitTypeTest.f90 Matrix_mutip.f90 N.dat TestLeapYear.f90 TestUndeclared.f90
[ese-zhangyx@login03 fortran_demo1]$ vim MN.dat
```

```
OpenSSH SSH client
249.40 321.28 135.42 251.66 322.83
229.90 277.34 115.80 222.61 283.04
193.38 239.84 100.18 191.18 242.60
206.09 294.73 133.52 208.97 300.72
229.90 277.34 115.80 222.61 283.04

"MN.dat" 5L, 230C
```

2、 Good (25/25). The code in .f90 is clear and correct.

```
[ese-zhangyx@login03 fortran_demo1]$ vim Declination_angle.f90
[ese-zhangyx@login03 fortran_demo1]$ vim Solar_elevation_angle.f90
[ese-zhangyx@login03 fortran_demo1]$ ar rcvf libsea, a Declination_angle.o Solar_hour_angle.o
r - Declination_angle.o
r - Solar_hour_angle.o
[ese-zhangyx@login03 fortran_demo1]$ gfortran Solar_elevation_angle.f90 -o Q2.x -L . -lsea
[ese-zhangyx@login03 fortran_demo1]$ ./Q2.x
the SEA is      36.459915083363938
[ese-zhangyx@login03 fortran_demo1]$
```

In your code, I suggest you to use `asind` and `sin`, replacing `asin(/pi*180)` and `sin(/180*pi)`.