Quiz1 Solution

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Program code1
implicit none
real (kind=8) :: z,a,g
Print*,'Enter z'
read (*,*) z
a=1.0/(1.0+15.0*z**3)
g=(z**2-1.0)**(4.0*sin(z))/(log(z-1)-a)
Print*, g
End program code1

program code2
implicit none
real (kind=4), dimension (5) :: V1,V2,V3,avg
real (kind=4), dimension (5,3) :: M
integer :: i,j
V1(1:5)=0.0; V2(1:5)=0.0; V3(1:5)=0.0
Print*,'input a vector with exactly 5 elements of numbers (comma separated
read (*,*) V1(1),V1(2),V1(3),V1(4),V1(5)
Print*,'input a vector with exactly 5 elements of numbers (comma separated
read (*,*) V2(1),V2(2),V2(3),V2(4),V2(5)
Print*,'input a vector with exactly 5 elements of numbers (comma separated
read (*,*) V3(1),V3(2),V3(3),V3(4),V3(5)
M(1:5,1)=V1; M(1:5,2)=V2; M(1:5,3)=V3
Print*,'The entered vectors make the below 5x3 matrix:'
do i=1,5
 print*, M(i,1:3)
end do
do i=1,5
 avg(i)=sum(M(i,1:3))/3.0
end do
Print*,'The average values of each row of the above matrix respectively ar
End program code2

Program code3
implicit none
integer (kind=4), dimension (10,10) :: M
integer (kind=4) :: z,i,j
print*,'enter z (an integer between 0 to 6)'
read (*,*) z
if (z>0 .and. z<6) then
 do i=1,10
  do j=1,10
   M(i,j)=(i+j)**z
   if (M(i,j)>=10**6) then
    M(i,j)=99999
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   endif
  enddo
enddo
else
 stop
endif
Print*,'The below 10x10 matrix is created based on your entry'
do i=1,10
 print*, M(i,1:10)
enddo
End program code3
```