ADAS Subroutine ass

```
C
        subroutine ass(a10,a1,a20,a2,phi1,phi2,x,n,e1,e2,nmax,rem)
c----------------------------------------------------------------------
c
c  ***************** fortran77 subroutine: ass   *********************
c
c  purpose:  calculates asymptotic integrals using power series modules
c
c
c  subroutine:
c
c  input : (r*8)  a10
c  input : (r*8)  a1
c  input : (r*8)  a20
c  input : (r*8)  a2
c  input : (r*8)  phi1
c  input : (r*8)  phi2
c  input : (r*8)  x
c  input : (i*4)  n
c  input : (r*8)  e1
c  input : (r*8)  e2
c  input : (i*4)  nmax
c
c  output: (r*8)  rem
c
c
c  routines:
c          routine    source    brief description
c          ------------------------------------------------------------
c          dnaq       adas
c          dnprod     adas
c          i4unit     adas      fetch unit number for output of messages
c
c  author: h. p. summers, university of strathclyde
c          ja7.08
c          tel. 0141-548-4196
c
c  date:   06/06/02
c
c  update:

C VERSION: 1.1                          DATE: 04-07-96
C MODIFIED: WILLIAM OSBORN
C               - FIRST VERSION.
C VERSION: 1.2                          DATE: 19-12-01
C MODIFIED: Martin O'MULLANE
C               - Removed junk from > column 72.
C
C VERSION: 1.3                          DATE: 18-03-03
C MODIFIED: Hugh Summers
C               - re-written and documented
C
```

```fortran
c----------------------------------------------------------------------
c----------------------------------------------------------------------
      INTEGER            N,          NMAX
      REAL*8             A1(20),     A10,        A2(20),     A20
      REAL*8             E1,         E2,         PHI1,       PHI2
      REAL*8             REM,        X
```