NAME
TPVADD – Find and normalize the sum of two-part values.

SYNOPSIS
CALL TPVADD(A,B,L, SUM)

A   is the first two-part value
B   is the second two-part value
L   is the number of small things in a big one
SUM is the sum two-part value A+B

DESCRIPTION
The routine first normalizes A and B in-place. Then it adds their small parts and their big parts, and normalizes the resulting SUM. The same variable may be used for A and SUM or for B and SUM. If the same variable is passed for A, B, and SUM, its value on return will be twice its value at the call.

WARNING
Input quantities A and B might be changed when they are normalized.

SEE ALSO
TPVNML, which normalizes a 2-part value (and which this routine uses)
TPVSUB, which subtracts one 2-part value from another
TPVSCL, which scales a 2-part value by a REAL*8 factor
TPVMLT, which multiplies 2-part values to yield REAL*8
TPVDIV, which divides one 2-part value by another to yield REAL*8
TPVMAX, which returns the larger of 2-part values
TPV2R8, which returns a REAL*8 for a 2-part value
R82TPV, which returns a 2-part value for a REAL*8

LINKAGE
gfortran   source.f   −L${HOME}/lib   −lmisc

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EXAMPLE
```
      INTEGER*4 A(2)/2,37/,B(2)/-1,8/,SUM(2)
      CALL TPVADD(A,B,12, SUM)
      WRITE(6,901) A,B,SUM
  901 FORMAT('[',I2,',',I2,']+[',I2,',',I2,']=[',I2,',',I2,']')
      STOP
      END
```

This program finds that 5+1/12 + 0−4/12 = 4+9/12 as shown by this output.

```
unix[1] a.out
[ 5, 1]+[ 0,-4]=[ 4, 9]
unix[2]
```