

NAME

IROUND – Return the INTEGER*4 nearest to a given REAL*8.

SYNOPSIS

RESULT=IROUND(R)

RESULT is the INTEGER*4 nearest to R
 R is the REAL*8 value that is to be rounded to a whole number

DESCRIPTION

If R is positive this routine adds one half to R and chops the result to an integer; otherwise it subtracts one half from R and chops the result to an integer. Zero rounds to zero; 0.5 rounds to +1; -0.5 rounds to -1.

SEE ALSO

ICEIL, which returns the INTEGER*4 ceiling of a REAL*8
 IFLOOR, which returns the INTEGER*4 floor of a REAL*8

LINKAGE

gfortran source.f -L\${HOME}/lib -lmisc

AUTHOR

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EXAMPLE

```
REAL*8 R/3.7D0/
I=IROUND(R)
WRITE(6,901) R,I
WRITE(6,901) -0.5,IROUND(-0.5D0)
WRITE(6,901) 0.0,IROUND(0.0D0)
WRITE(6,901) +0.5,IROUND(+0.5D0)
901 FORMAT(' round(',F3.1,' )=',I2)
STOP
END
```

This example produced the following output:

```
unix[1] a.out
round(3.7)= 4
round(-.5)=-1
round(0.0)= 0
round(0.5)= 1
unix[2]
```