

# NAG Library Routine Document

## X07BAF

**Note:** before using this routine, please read the Users' Note for your implementation to check the interpretation of *bold italicised* terms and other implementation-dependent details.

### 1 Purpose

X07BAF creates a signed infinite value.

### 2 Specification

```
SUBROUTINE X07BAF (ISIGN, X)
INTEGER          ISIGN
REAL (KIND=nag_wp) X
```

### 3 Description

X07BAF sets X to be positive or negative infinity.

### 4 References

IEEE (2008) *Standard for Floating-Point Arithmetic IEEE Standard 754-2008* IEEE, New York.

### 5 Arguments

- 1: ISIGN – INTEGER *Input*  
*On entry:* determines the sign of the infinity to be created.  
If ISIGN is greater than or equal to 0, a positive infinity is returned, otherwise a negative infinity is returned.
- 2: X – REAL (KIND=nag\_wp) *Output*  
*On exit:* the required infinite value.

### 6 Error Indicators and Warnings

None.

### 7 Accuracy

Not applicable.

### 8 Parallelism and Performance

X07BAF is not threaded in any implementation.

### 9 Further Comments

None.

## 10 Example

See Section 10 in X07AAF.

---