

# NAG Library Routine Document

## X07BBF

### 1 Purpose

X07BBF creates a NaN (Not A Number).

### 2 Specification

```
SUBROUTINE X07BBF (QUIET, X)
```

```
INTEGER QUIET
```

```
REAL (KIND=nag_wp) X
```

### 3 Description

X07BBF sets X to be a quiet or a signalling NaN (Not A Number).

### 4 References

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

### 5 Parameters

1: QUIET – INTEGER *Input*

*On entry:* determines whether a quiet or a signalling NaN is to be created. If QUIET = 1, the returned NaN is quiet, otherwise it is signalling. See reference IEEE (2008) for the distinction between the two kinds.

2: X – REAL (KIND=nag\_wp) *Output*

*On exit:* the required NaN value.

### 6 Error Indicators and Warnings

None.

### 7 Accuracy

Not applicable.

### 8 Further Comments

None.

### 9 Example

See Section 9 in X07AAF.

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