

# NAG Library Function Document

## nag\_create\_infinity (x07bac)

### 1 Purpose

nag\_create\_infinity (x07bac) creates a signed infinite value.

### 2 Specification

```
#include <nag.h>
#include <nagx07.h>

void nag_create_infinity (Integer isign, double *x)
```

### 3 Description

nag\_create\_infinity (x07bac) 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** – double \* *Output*  
*On exit:* the required infinite value.

### 6 Error Indicators and Warnings

None.

### 7 Accuracy

Not applicable.

### 8 Parallelism and Performance

nag\_create\_infinity (x07bac) is not threaded in any implementation.

### 9 Further Comments

None.

## **10 Example**

See Section 10 in nag\_is\_finite (x07aac).

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