

**NAME**

$j_0$ ,  $j_1$ ,  $j_n$ ,  $y_0$ ,  $y_1$ ,  $y_n$  - Bessel functions

**SYNOPSIS**

```
#include <math.h>
double j0 (x)
double x;
double j1 (x)
double x;
double jn (n, x)
double x;
double y0 (x)
double x;
double y1 (x)
double x;
double yn (n, x)
int n;
double x;
```

**DESCRIPTION**

These functions calculate Bessel functions of the first and second kinds for real arguments and integer orders.

**DIAGNOSTICS**

Negative arguments cause  $y_0$ ,  $y_1$ , and  $y_n$  to return a huge negative value.