Completion Codes

A second error-reporting option is the "tried-and-true" traditional completion code technique used for years in C, Pascal and FORTRAN. Have your function **return a special value** meaning that “the function failed to execute correctly.”

In a way, this is what `sqrt()` does; it returns the "special" not-a-number value when its answer cannot be converted to a valid `double`. You can test for this value using the `isnan()` function in the header `<cmath>`. You could use the "error code" like this:

```
if (isnan(answer = sqrt(-1))) { /* error */ }
```

The `isnan()` function was added to C++ 11. Before that, `sqrt()` set the global variable `errno`, defined in `<cerrno>`, which was used like this.

```
double answer = sqrt(-1.0); // invalid
if (errno == EDOM) { /* invalid DOMain */ }
```