assert() — Abort execution if false

Syntax	Description	Remarks and examples	Conformability
Diagnostics	Also see		

Syntax

void assert(real scalar r)

void asserteq(transmorphic matrix A, transmorphic matrix B)

Description

assert(r) produces the error message "assertion is false" and aborts with error if r = 0.

asserteq(A, B) is logically equivalent to assert(A==B). If the assertion is false, however, information is presented on the number of mismatches.

Remarks and examples

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In the midst of complicated code, you know that a certain calculation must produce a result greater than 0, but you worry that perhaps you have an error in your code:

```
assert(n>0)
```

In another spot, you have produced matrix A and know every element of A should be positive or zero:

```
assert(A:>=0)
```

Once you are convinced that your function works, these verifications should be removed. In a third part of your code, however, the problem is different if the number of rows r exceed the number of columns c. In all the cases you need to use it, however, r will be less than c, so you are not much interested in programming the alternative solution:

```
...
assert(rows(PROBLEM) < cols(PROBLEM))
...</pre>
```

Leave that one in.

Conformability

 $\begin{array}{cccc} \texttt{assert}(r): & r: & 1 \times 1 \\ result: & void \\ \texttt{asserteq}(A, B): & \\ & A: & r_1 \times c_1 \\ & B: & r_2 \times c_2 \\ result: & void \end{array}$

Diagnostics

assert(r) aborts with error if r == 0.

asserteq(A, B) aborts with error if $A \neq B$.

Also see

[M-4] programming — Programming functions