Part III
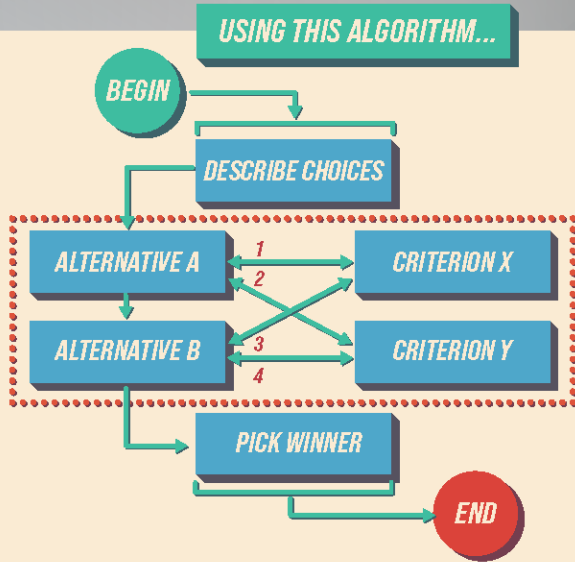# DOCUMENT ALGORITHMS

USE ALGORITHMS
TO DEFINE DOCUMENT STRUCTURES

▶ Like an *algorithmic flowchart*, a document algorithm can be used by an engineering writer to structure the logical development of an engineering document written in sentences and paragraphs.

▶ Although writing a document will require effort, the algorithm will ease the writing process because it is guided by a *straightforward plan.*

USING THIS ALGORITHM...

BEGIN

DESCRIBE CHOICES

ALTERNATIVE A → 1 2 → CRITERION X

ALTERNATIVE B → 3 4 → CRITERION Y

PICK WINNER

END

...WRITE THIS TEXT STREAM

Given the two available thicknesses of tempered glass for our deep-sea submarine's observation window, the first alternative, at 4 cm thick, satisfies both the pressure-stress criterion and strain-flex criterion with design margins of 2 and 2.3, respectively.
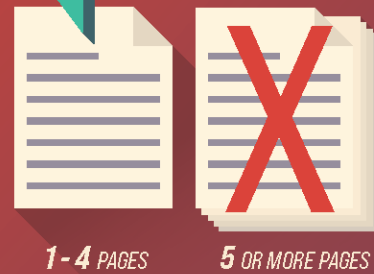
The second alternative, at 3 cm thick, satisfies the stress criterion with a margin of 1.1 and fails to meet our minimum specification for flex. Considering the preceding results, I recommend the 4 cm thick glass.

DOCUMENT GEOMETRY

Refers to document design elements:

The *placement and arrangement* of *text and graphics* on the page.

SHORT-FORM DOCUMENTS
ARE GENERALLY PREFERRED

1 - 4 PAGES   **5** OR MORE PAGES

5 ESSENTIAL ENGINEERING DOCUMENTS

1 PROJECT PROPOSAL
A front-end document for soliciting funding and authorization.

2 STATUS REPORT
An interim document that reports status of a project in progress.

3 PROJECT REPORT
A back-end document presenting project results and the associated activities that produced those results.

4 TECH TO NON-TECH BRIEF
A "how it works" document that explains a technical concept to a nontechnical audience.

5 INSTRUCTIONAL JOB AID
A "how to do it" document that teaches a technical job task to someone who needs step-by-step procedures for correctly performing that task.