

I. “Invention”

II. Eligibility for a Patent

III. Industrial Applicability

IV. Exercise

JPO Guidelines, Part III, Chapter 2, Section 2.1

List of Subject Matters Not Corresponding to Statutory "Inventions" to be considered as a statutory "invention", an invention needs to be a "creation of a technical idea utilizing the laws of nature". Since (i) to (vi) shown below are not a "creation of a technical idea utilizing the laws of nature", it is not considered as a statutory "invention".

- (i) The laws of nature as such
- (ii) Mere discoveries and not creations
- (iii) Those contrary to the laws of nature
- (iv) Those in which the laws of nature are not utilized
- (v) Those not regarded as technical ideas
- (vi) Those for which it is clearly impossible to solve the problem to be solved by any means presented in a claim

II. Eligibility for a Patent (JPO practice)

(i) The laws of nature as such

- ✗ a law of preservation of energy
- ✗ a law of universal gravitation



(ii) Mere discoveries and not creations

- ✗ discoveries of natural things (e.g., ore)
- ✗ natural phenomena
- chemical substances or microorganisms have been isolated artificially from their surroundings



(iii) Those contrary to the laws of nature

- ✗ any means contrary to the laws of nature (e.g., perpetual motion),

(iv) Those in which the laws of nature are not utilized


- ✗ Any laws other than the laws of nature (e.g., economic laws)
- ✗ Arbitrary arrangements (e.g., a rule for playing a game as such)
- ✗ Mathematical formula
- ✗ Mental activities of humans
- ✗ Methods for doing business as such
- ✗ Computer programming languages



(v) Those not regarded as technical ideas

- ✗ Personal skill (which is acquired through personal experience)
- ✗ Mere presentation of information (e.g., Image data taken with a digital camera)
- ✗ Mere aesthetic creations (e.g., paintings, carvings)

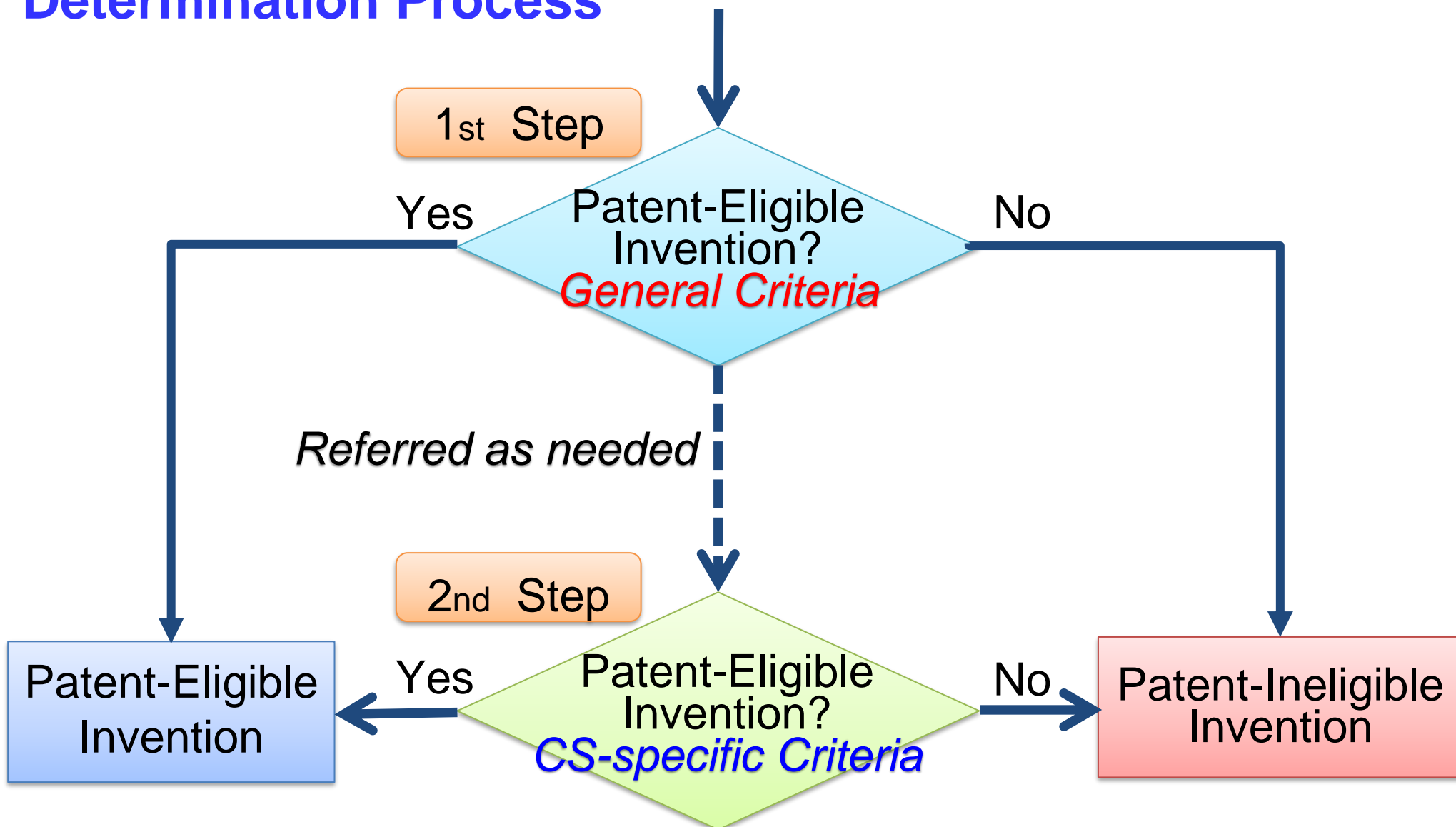
(vi) Those for which it is clearly impossible to solve the problem to be solved by any means presented in a claim

-  A method of preventing explosion in a volcano by forming balls of neutron-absorbing material covered with substance having a relatively high melting temperature and throwing them into the volcanic vent

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**Patent eligibility for
CS (Computer Software) technical fields**

Determination Process



General Criteria

(JPO Examination Guidelines : Part III, Chapter I, 2.1)

◆ Examples of Non Patent Eligibility

1. The laws of nature as such
2. Mere discoveries and not creations
3. Those contrary to the laws of nature
4. Those in which the laws of nature are not utilized
 - i. Any laws other than the laws of nature (e.g., economic laws)
 - ii. Artificial arrangements (e.g., a rule for playing a game *per se*)
 - iii. Mathematical formula
 - iv. Mental activities of humans
 - v. Those utilizing only (i) to (iv) (e.g., methods for doing business as such)
5. Those not regarded as technical ideas
6. Those for which it is clearly impossible to solve the problem to be solved by any means presented in a claim

General Criteria

(JPO Examination Guidelines : Part III, Chapter I, 2.2)

◆ CS-related inventions utilizing the laws of nature

- (i) Those concretely performing control of an apparatus (e.g., rice cooker, washing machine, engine, hard disk drive, chemical reaction apparatus, nucleic acid amplifier), or processing with respect to the control
- (ii) Those concretely performing information processing based on the technical properties such as physical, chemical, biological or electric properties of an object (e.g., rotation rate of engine, rolling temperature, relation between gene sequence and expression of a trait in a living body, physical or chemical relation of bound substances)

CS-Specific Criteria

(JPO Examination Guidelines: Part III, Chapter I, 2.2,
JPO Examination Handbook: Annex B, Chapter I, 2.1.1)

◆ Basic ideas based on the standpoint of software

- A claimed invention is “a creation of technical ideas utilizing a law of nature,” when the claim specifies information processing by software that is concretely realized by using hardware resources.
- "Information processing by software is concretely realized by using hardware resources" means that a specific information processor or an operation method thereof is constructed through cooperation of the software and the hardware resources.

CS-Specific Criteria

(JPO Examination Handbook: Annex B, Chapter I, 2.1.1.2)

◆ Points to note

- The examiner shall make a determination **by looking at the claimed invention as a whole**, irrespective of part of matters specifying the invention in the claims.
- Even if “a computer (information processor)” is the only hardware resource stated in the claims, in cases where the claims state specific calculation or processing of information depending on the intended use, **cooperation of the software and the hardware resources** such as a "CPU (calculation means)" and "memory (storage means)" **can be recognized based on the common general knowledge**.

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Patent eligibility in PCT

Patent Eligibility under the PCT

Rule 39 in Regulations under the PCT specifies certain subject matter which an International Searching Authority is not required to carry out examination.

Rule 67 in Regulations under the PCT sets out a list of subject matter for an International Preliminary Examining Authority.

Rule 39 in Regulations under the PCT

No International Searching Authority shall be required to search an international application if, and to the extent to which, its subject matter is any of the following:

- (i) scientific and mathematical theories,
- (ii) plant or animal varieties or essentially biological processes for the production of plants and animals, other than microbiological processes and the products of such processes,
- (iii) schemes, rules or methods of doing business, performing purely mental acts or playing games,
- (iv) methods for treatment of the human or animal body by surgery or therapy, as well as diagnostic methods,
- (v) mere presentations of information,
- (vi) computer programs to the extent that the International Searching Authority is not equipped to search prior art concerning such programs.

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Examples – CS related invention

Example 1 (method)

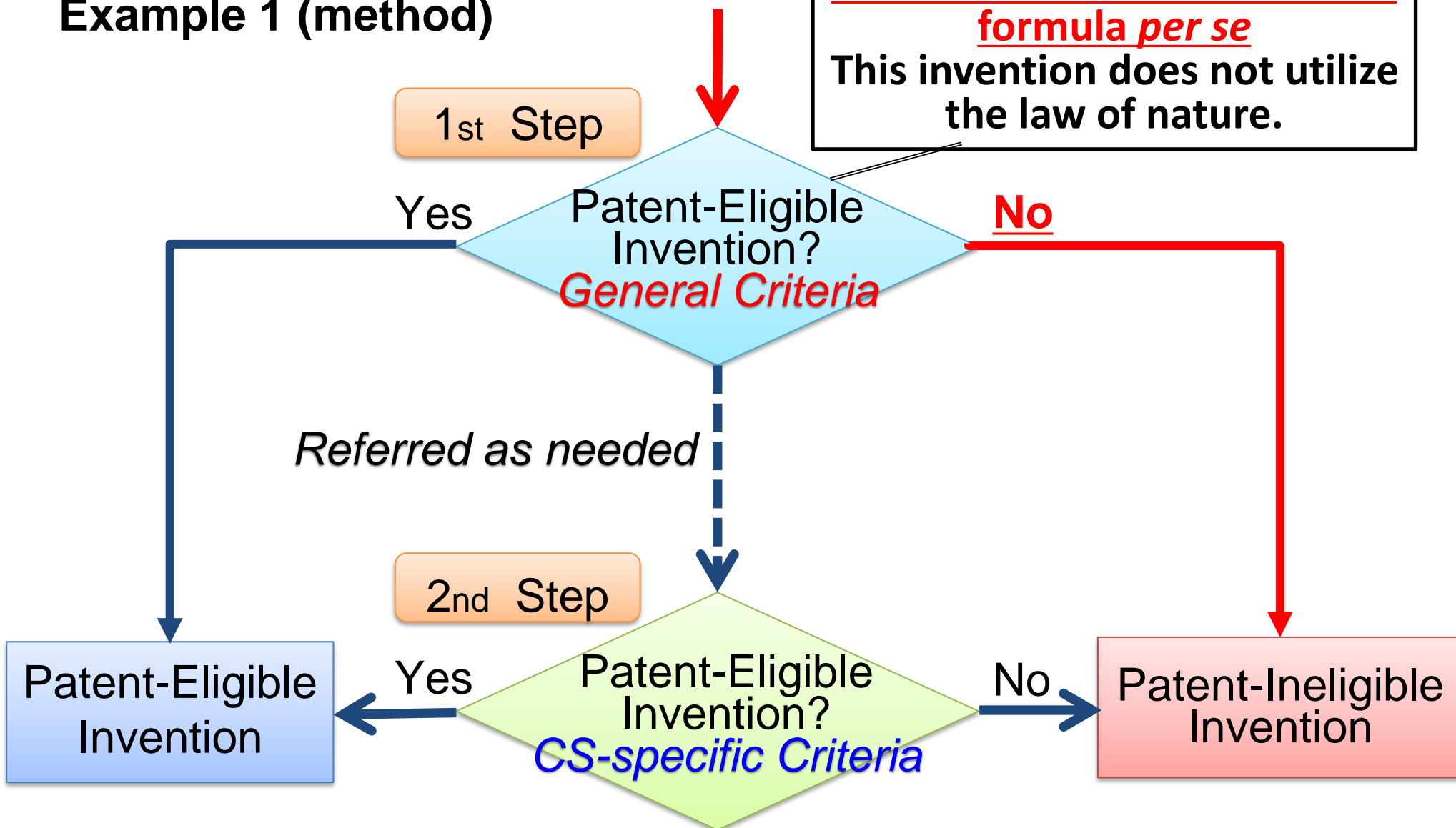
[Claim]

A method for computing a product “s” of natural numbers “n” and “m” by the formula:

$$s = \frac{(m + n)^2 - (m - n)^2}{4}$$

Example 1 (method)

Calculation of a mathematical formula *per se*
This invention does not utilize the law of nature.



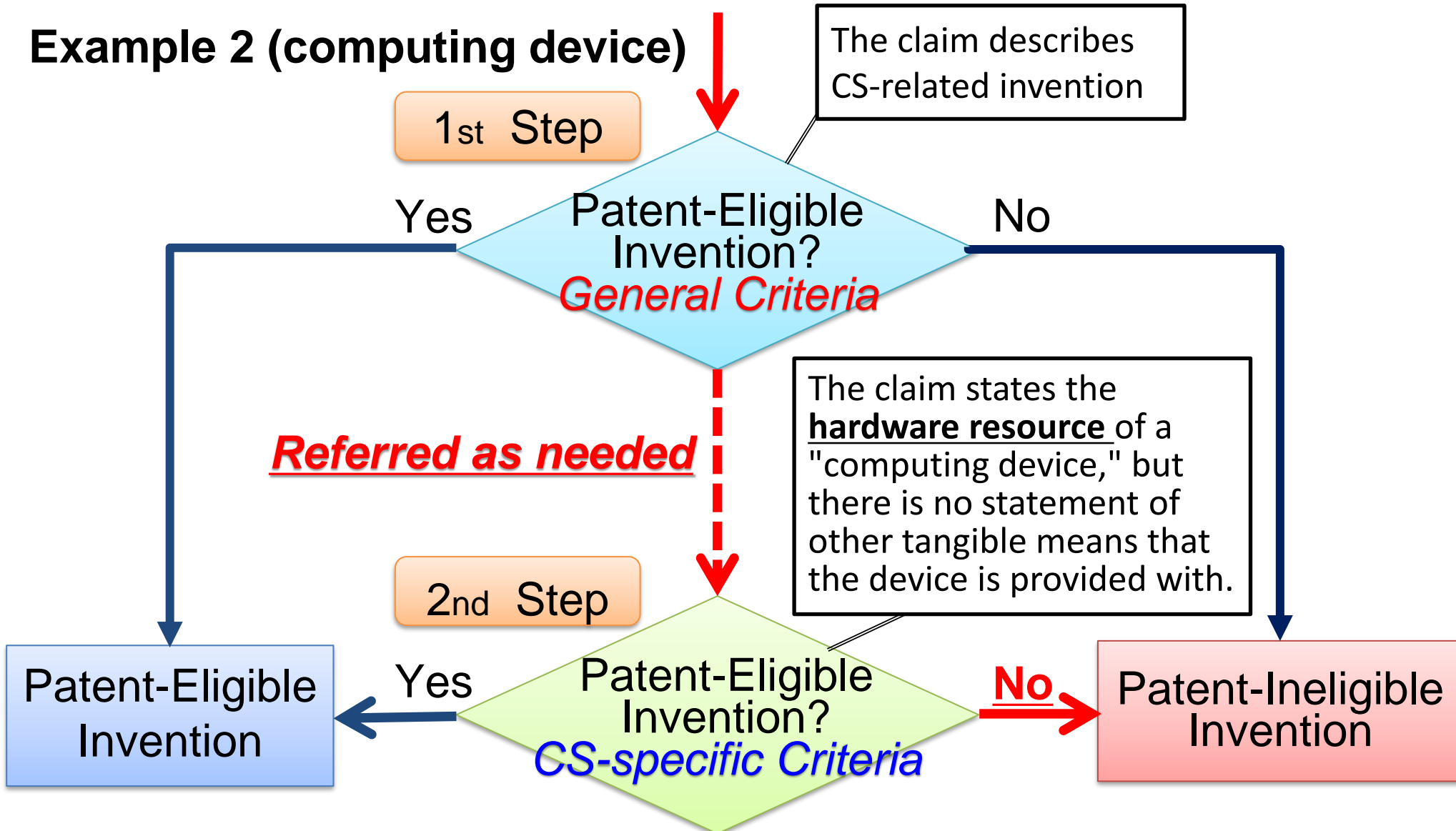
Example 2 (computing device)

[Claim]

A computing device to compute a product “s” of natural numbers “n” and “m” by the formula:

$$s = \frac{(m + n)^2 - (m - n)^2}{4}$$

Example 2 (computing device)



Thus, the information processing by software is **NOT** concretely realized by using hardware resources in the claimed invention.

Example 3 (computing device)

[Claim]

A computing device to compute the formula:

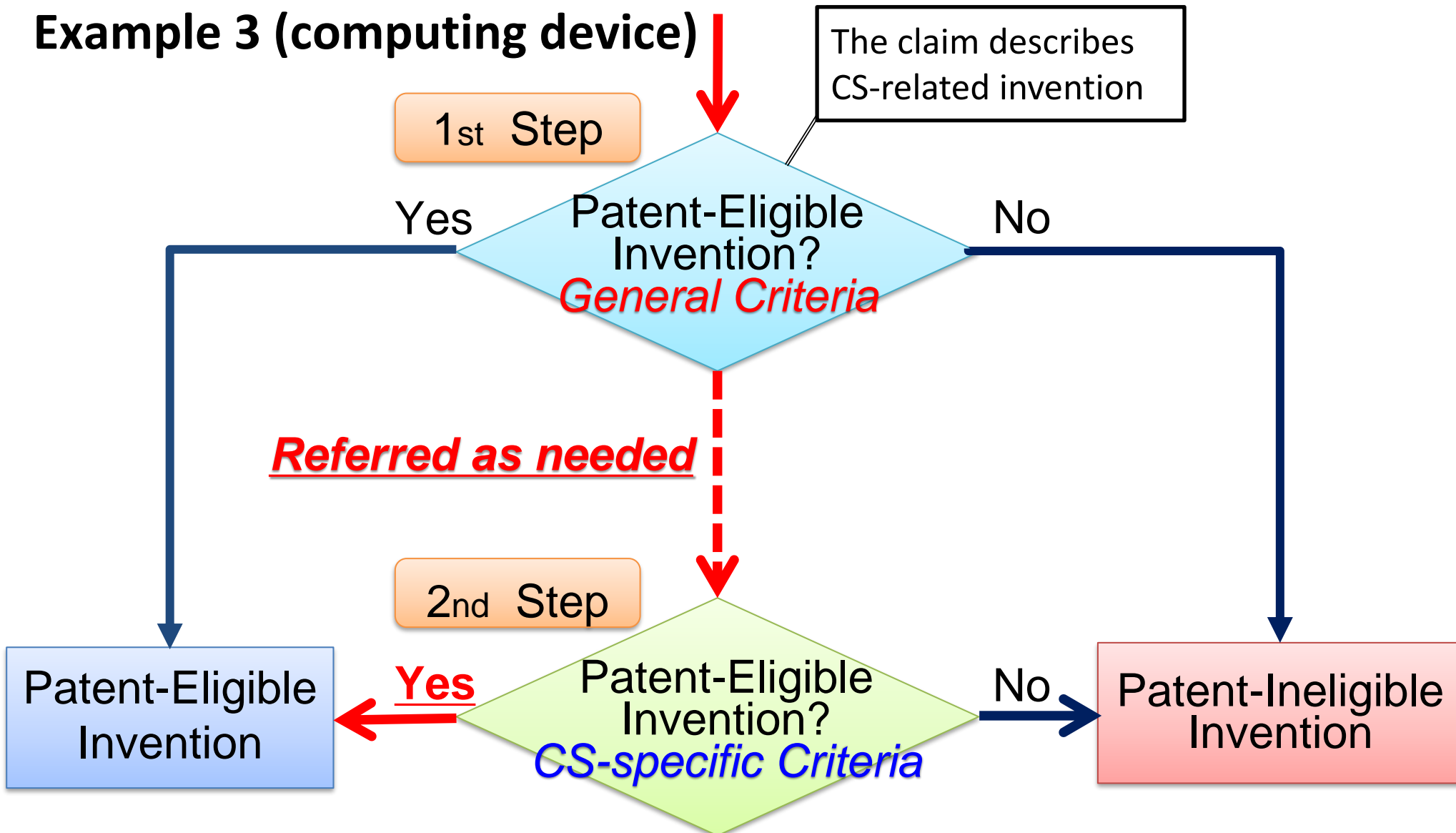
$$S = \frac{(m + n)^2 - (m - n)^2}{4}$$

comprising;

- a) a square values table wherein square values are stored,
- b) an arithmetic means comprising of an adder, a subtracter and a bit shifter,
- c) and an output means for outputting a result 's' from the arithmetic means,

wherein the formula is computed using square values read by the said arithmetic means from the said square values table.

Example 3 (computing device)



The information processing by software is **concretely realized by using hardware resources** (e.g. a square values table, arithmetic means). in the claimed invention.