2015-JP-01-eng Woodwork

0 ----	I: hard	II: medium	III: easy	IV: ----
☐ ALG	☒ INF	☐ STRUC	☐ PUZ	☐ SOC	☐ USE

Answer Type: Multiple Choice Mandatory for: none

Body

Bitaro and Bibako sit on the river working on wooden toys.
As tools they share a hammer, a scissor, and a saw.
For each type of toy they require two distinctive tools.
They take this tools from the sandbank and return them after usage,
If a required tool is not on the sandbank they wait until it is returned.
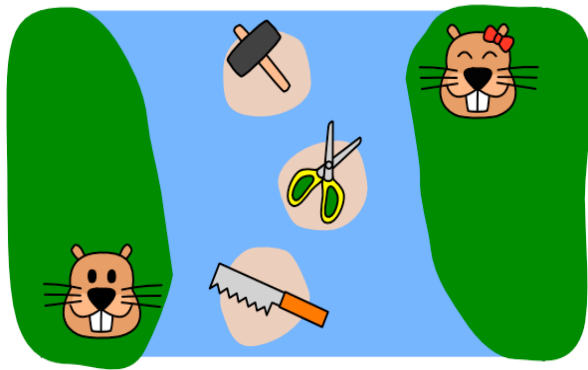
But there are situations where both require a specific tool
which is in use by the other.
Then they stop woodworking, return all tools and take a swim,

Question

In which situation do they take a swim?

A) Bitaro has the hammer and the saw. Bibako has the scissor and requires the hammer.
B) Bitaro has the hammer and requires the saw. Bibako has the saw and requires the hammer.
C) Bitaro has the hammer and requires the saw. Bibako has the saw and the scissor.
D) Bitaro has the hammer and the scissor. Bibako requires the scissor and the saw.

Answer

B

Explanation

In the situation B, they will have to wait each other forever after they carried the first tool each.
In other situations, they may have to wait for a while, but they can get tools sooner or later.

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It's informatics

This situation is called 'deadlock'. When programs access sharing resources, the order of locking is important to prevent the deadlock.
Many programs are running concurrently in networks and in computers.
Sharing resources and preventing deadlock are both important.

Keywords

Deadlock, Exclusion Control, Concurrent processing

Websites

Internal Use

Wording

Comments

Author, e-mail, Date (YYYY-MM-DD), Comment.

Graphics

in the graphics folder:
2015-JP-01.svg
2015-JP-01.png

Files

All additional files for this task (graphics, scripts, etc.)
2015-JP-01-eng.odt (this file)
graphics/2015-JP-01.svg
graphics/2015-JP-01.png

Authorship

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