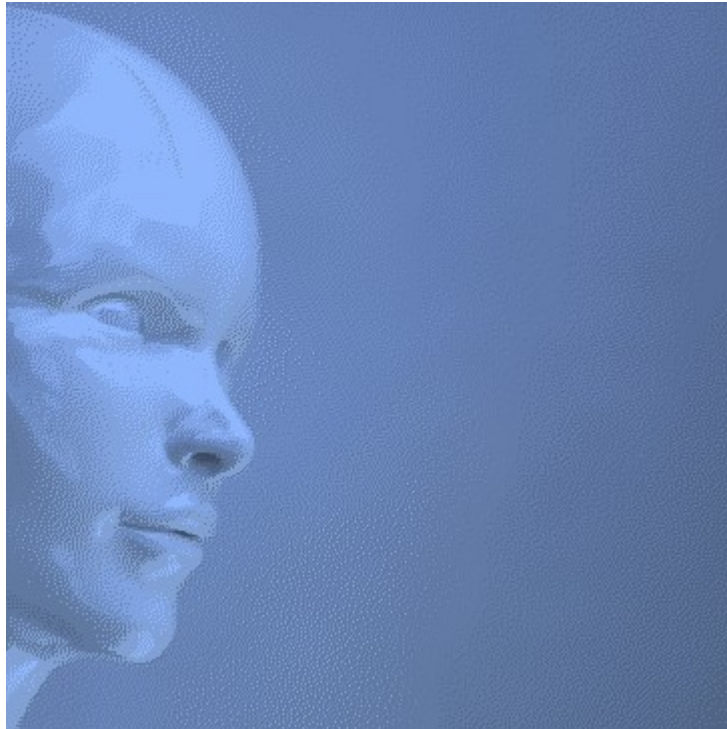


# Scientific challenge:

Beat the simplest results of my Controlled Natural Language (CNL) reasoner



## Introduction

Everything in nature is bound by natural laws, and proceeds according to natural laws. However, scientists are unable, unwilling or forbidden to define intelligence as a set of natural laws. Not being based on laws of nature, Artificial Intelligence (AI) is not an artificial implementation of natural intelligence. Therefore, AI is not a fundamental science, but a field of engineering.

A [fundamental science](#) delivers generic solutions, while a field of engineering is limited to specific solutions to specific problems. And engineered solutions are limited to perform routine tasks. So, being a field of engineering, AI is limited to perform routine tasks.

However, it is possible to uplift this field of engineering towards a fundamental science, similar to the field of electromagnetism, which is based on laws of nature. Thanks to research on the natural laws of electromagnetism, we are able to close the loop for electricity, magnetism, light and movement. As a result, we are able to apply these conversions to daily life. We are able:

- to convert electricity to magnetism, and to convert magnetism back to electricity;
- to convert electricity to light, and to convert light back to electricity;
- to convert electromagnetism to movement, and movement back to electromagnetism.

I am using [fundamental science / basic research](#) (logic and laws of nature) instead of [cognitive science](#) (simulation of behavior), in order to replicate natural intelligence in an artificial environment (software), because:

- Autonomous reasoning requires both natural intelligence and natural language;
- Intelligence and language are natural phenomena;
- Natural phenomena obey laws of nature;
- Laws of nature and logic are investigated using fundamental science.

By defining [intelligence](#) as a set of natural laws – and researching [Laws of Intelligence that are naturally found in the Human Language](#) – I am able to close the loop for natural intelligence and natural language. As a result, my system is able:

- to convert readable sentences – with a limited, delimited grammar – to a logic that isn't described by scientists yet;
- to autonomously derive new knowledge, using my extended logic;
- and to express the derived knowledge in readable – and autonomously word by word constructed sentences – with a limited, delimited grammar.

The logical rules of my autonomous reasoner are (almost) language-independent. So, I can add any language I like, just by configuring my reasoner for this new language, and a little bit of programming. My reasoner is already able to read, to autonomously reason and to autonomously write the derived knowledge in readable [English](#), [Spanish](#), [French](#), [Dutch](#) and [Chinese](#), while scientists are unable to develop a proper multilingual reasoner.

Therefore, I defy anyone to beat the simplest results of my [Controlled Natural Language](#) (CNL) reasoner in a generic way: from Controlled Natural Language, through algorithms, back to Controlled Natural Language, in multiple languages, without programmed knowledge, without human-written output sentences, and without the use of extensive words lists.

Of course, my reasoner is available free of charge, and published as [open source software](#).

## Problem description 1: Reasoning in the past tense

Autonomous reasoning requires both [natural intelligence](#) and [natural language](#). [Aristotle](#) already applied natural intelligence to natural language roughly 2,400 years ago:

> Given: “All philosophers are mortal.”

> Given: “Socrates is a philosopher.”

•

• Logical conclusion:

< “Socrates is mortal.”

However, at the time Aristotle described the natural reasoning example mentioned above, [Socrates](#) was already dead – the ultimate proof of his morality. So, actually, Aristotle should have used the past tense form in his example, regarding to Socrates:

> Given: “All philosophers are mortal.”

> Given: “Socrates was a philosopher.”

•

• Logical conclusion:

< “Socrates was mortal.”

The tense of a verb tells us about the state of the involved statement:

- “Socrates is a philosopher” tells us that Socrates is still alive;
- “Socrates was a philosopher” tells us that Socrates is no longer among the living.

In regard to the conclusion:

- “Socrates is mortal” tells us that the death of Socrates is inevitable, but that his mortality isn't proven yet by hard evidence;
- “Socrates was mortal” tells us that his mortality is proven by hard evidence.

So, why isn't past tense reasoning naturally supported by predicate logic (algebra)? Why should any past tense predicate be engineered – and described in an artificial way – like [was\\_philosopher\(socrates\)](#) and [was\\_mortal\(socrates\)](#)? Why is predicate logic (algebra) still not fully equipped for natural language, after those centuries of scientific research?

## Problem description 2: Possessive reasoning

Also possessive reasoning – reasoning using possessive imperative “have” – isn’t naturally supported by predicate logic (algebra):

> Given: “Paul is a son of John.”

•

• Logical conclusion:

< “John has a son, called Paul.”

Or the other way around:

> Given: “John has a son, called Paul.”

•

• Logical conclusion:

< “Paul is a son of John.”

So, why doesn't predicate logic (algebra) support possessive reasoning in a natural way? Why should any predicate that can't be expressed using imperative “are” in the present tense be engineered – and described in an artificial way – like `has_son(john,paul)`? Why is predicate logic (algebra) still not equipped for automating natural language, in this computer era?

### Problem description 3: Generation of questions

Algebra describes the [Exclusive OR](#) (XOR) function, while [CNL reasoners](#) don't implement its linguistic equivalent: conjunction “[or](#)”. CNL reasoners are therefore unable to generate the following question:

> Given: “[Every person is a man](#) [or](#) [a woman](#).”

> Given: “[Addison is a person](#).”

•

• Logical question:

< “[Is Addison a man](#) [or](#) [a woman?](#)”

Everything in nature is connected. However, scientists have artificially separated logic ([Exact sciences](#)) from language ([Humanities](#)), by which the [Logic of Language](#) isn't fully described yet. In my experience, linguists, philosophers and mathematicians all point to each other when it comes to describe the Logic of Language in a fundamental way. Let alone, to define [natural intelligence](#) as a set of Natural Laws, for example found in [natural language](#).

Like a programming language, also natural language has structure words and variables. The structure words of language – which in this document are printed in blue – have a naturally intelligent, logical, structure-providing function in language. The following structure words of language will be illustrated in this challenge document:

Possessive verb “[has/have](#)” (Block 1, Block 2 and Block 3), past tense verbs “[was/were](#)” and “[had](#)” (Block 4), conjunction “[or](#)” (Block 5) and definite article “[the](#)” (Block 6).

## Generally accepted workaround

The generally accepted workaround in the field of Artificial Intelligence (AI) and knowledge technology (NLP), to enter knowledge containing imperative “**have**”, is to program it directly into a reasoner, like: `has_son(john,paul)`. However, this is **not** a generic solution (=science), but a specific solution to a specific problem (=engineering). Because it requires to program each and every noun directly into the reasoner (`has_daughter`, `has_father`, `has_mother`, and so on), and for each and every new language. As a consequence, there is no technique available to convert a sentence like “**Paul is a son of John**” to “**John has a son, called Paul**” in a generic way – from natural language, through an algorithm, to natural language – by which noun “**son**” and proper nouns “**Paul**” and “**John**” don’t have to be programmed into the reasoner. It is just the first example of this challenge (see Block 1).

Below, a contribution I received from a student, in an attempt to solve this problem. With his permission, his Excel implementation for the English language:

```
= IF(ISERROR(SEARCH("has a";A1));MID(A1;SEARCH("of";A1)+3;999) & " has a" &
IF(ISERROR(SEARCH("is an";A1));" ";"n ") & MID(SUBSTITUTE(A1;"is an";"is a");SEARCH("is a";
SUBSTITUTE(A1;"is an";"is a"))+5;SEARCH("of"; SUBSTITUTE(A1;"is an";"is a"))-
SEARCH("is";SUBSTITUTE(A1;"is an";"is a"))-6) & " called " & LEFT(A1;SEARCH("is";SUBSTITUTE(A1;"is
an";"is a"))-1);MID(SUBSTITUTE(A1;"has an";"has a");SEARCH("called";SUBSTITUTE(A1;"has an";"has a"))
+7;999) & " is a" & IF(ISERROR(SEARCH("has an";A1));" ";"n ") & MID(SUBSTITUTE(A1;"has an";"has
a");SEARCH("has a"; SUBSTITUTE(A1;"has an";"has a"))+6;SEARCH("called"; SUBSTITUTE(A1;"has
an";"has a"))-SEARCH("has";SUBSTITUTE(A1;"has an";"has a"))-7) & " of " &
LEFT(A1;SEARCH("has";SUBSTITUTE(A1;"has an";"has a"))-1))
```

This solution doesn’t check for word types, as explained in paragraph [1.6.2. The function of word types in reasoning](#) of my [fundamental document](#). Besides that, this logic needs to be copied for each language, while a generic solution has only one logical implementation. Moreover, this implementation can’t be expanded to process for example multiple specifications words, like in: “**Paul is a son of John and Anna**” or “**John has two sons, called Paul and Joe**”. So, this implementation is not flexible. Therefore, it is not generic, and thus not scientific.

The field of AI and NLP is “inspired by nature”. But it has no foundation in nature. Therefore, this field is limited to deliver specific solutions to specific problems (=engineering), like the Excel implementation mentioned above. However, this challenge is about uplifting this field of engineering towards a [fundamental science](#), by developing a generic solution, based on a foundation in nature, like I am developing:

My fundamental approach shows that imperative “**have**” is complementary to imperative “**are**”, by which also imperative “**have**” can be used in predicate logic, in a natural way. In order to utilize the naturally intelligent function of non-keywords (structure words), I have defined [natural intelligence](#) first. Then I have identified a few [Laws of Intelligence that are naturally found in the Human Language](#). And by implementing these laws of nature as a set of structuring algorithms is my system able to structure the knowledge of the system autonomously.

## The rules of this challenge

- There are 8 blocks to beat the most basic techniques of my system. Your implementation should deliver the results of at least one block listed below;
- Your implementation should not have any prior knowledge. Instead, it should derive its knowledge from the input sentences of the examples listed below, from readable language, through an algorithm, back to readable language;
- Preferable: The nouns and proper nouns of the listed examples are unknown upfront. (I use grammar definitions and an algorithm instead of a words list);
- Your implementation should be implemented as generic as can be, in such a way that all examples of this challenge can be integrated into one single system. The [screenshots](#) of my CNL reasoner illustrate how multiple reasoning constructions reinforce each other. At the end of each block, a screenshot is added to illustrate how my software handles the examples of this challenge;
- Your implementation should be published as open source software, so that its functionality is transparent. My software is published as [open source software](#) too;
- Your implementation should be accepted by a scientific committee (conference or journal);
- In case your results are slightly different, you need to explain why you have chosen differently;
- It is an on-going challenge, until all blocks have been scientifically accepted;
- I am the jury.

## Your rewards

- A small gesture from me: €1,000 for each of the blocks 1 to 6 to be scientifically accepted, and €2,000 for each of the blocks 7 and 8 to be scientifically accepted. So, €10,000 in total, for all 8 blocks;
- You will be the first one to have described in a scientifically accepted way, the logic of language that I have discovered.

You can contact me via [LinkedIn](#).

## Block 1: Direct conversions

### Definition 1:

---

“{proper noun 1} is a/an/the {singular noun} of {proper noun 2}”

equals to

“{proper noun 2} has a/an {singular noun}, called {proper noun 1}”

---

### Examples:

---

Variables: proper noun 1 = “Paul”, proper noun 2 = “John”, singular noun = “son”

> Given: “Paul is a son of John.”

•

• Generated conclusion:

< “John has a son, called Paul.”

---

Variables: proper noun 1 = “Laura”, proper noun 2 = “Anna”, singular noun = “daughter”

> Given: “Anna has a daughter, called Laura.”

•

• Generated conclusion:

< “Laura is a daughter, called Anna.”

---



**Definition 2:**

---

“Every {singular noun 1} has a/an {singular noun 2}”

equals to

“A/An {singular noun 2} is part of every {singular noun 1}”

---

**Examples:**

---

Variables: singular noun 1 = “car”, singular noun 2 = “engine”

> Given: “Every car has an engine.”

•

• Generated conclusion:

< “An engine is part of every car.”

---

Variables: singular noun 1 = “sailboat”, singular noun 2 = “sail”

> Given: “A sail is part of every sailboat.”

•

• Generated conclusion:

< “Every sailboat has a sail.”

---

The screenshot shows a web application window titled "Thinkknowlogy 2023 (Shaking tree)". The main content area displays a chat log with the following text:

```
3246, Guest> Read the file "English/reasoning/Scientific challenge".
3247, Guest> #-----
3247, Guest> # This test executes the examples of my Scientific Challenge.
3247, Guest> # For more info, see the included Scientific Challenge document,
3247, Guest> # or: https://mafait.org/challenge
3247, Guest> #-----
3247, Guest> # Block 1: Direct conversions
3247, Guest> #-----
3247, Guest> Paul is a son of John.
*
* My conclusions:
< John has a son, called Paul.
<
3248, Guest> Anna has a daughter, called Laura.
*
* My conclusions:
< Laura is a daughter of Anna.
<
3249, Guest> Every car has an engine.
*
* My conclusions:
< An engine is part of every car.
<
3250, Guest> A sail is part of every sailboat.
*
* My conclusions:
< Every sailboat has a sail.
<
```

Below the chat log is a control panel with several buttons: "Clear your mind.", "Restart.", "Undo.", "Redo.", "Login as Expert.", and "<more examples>". There are two text input fields: "Read the file 'English/reasoning/Scientific challenge'." and "Read the file 'English/reasoning/family/family definition'.". Below these are four more buttons: "<back>", "<change language>", "<change font>", and "Help.". At the bottom of the control panel, there is a text instruction: "Allow me to guide you by menu buttons, and by buttons with a predefined sentence."

## Block 2: Indirect conversions

### Definition 3a:

---

“Every {singular noun 1} has a/an {singular noun 2} and a/an {singular noun 3}”

from which can be concluded

“A/An {singular noun 2} and a/an {singular noun 3} are part of every {singular noun 1}”

---

### Example:

---

Variables: singular noun 1 = “family”, singular noun 2 = “parent”, singular noun 3 = “child”

> Given: “Every family has a parent and a child.”

•

• Generated conclusion:

< “A parent and a child are part of every family.”

---

**Definition 3b:**

---

“Every {singular noun 1} has a/an {singular noun 2} and a/an {singular noun 3}”

and

“{proper noun} is a/an {singular noun 2 or 3}”

from which can be concluded

“{proper noun} is part of a/an {singular noun 1}”

---

**Definition 3c:**

---

“Every {singular noun 1} has a/an {singular noun 2} and a/an {singular noun 3}”

and

“{proper noun} is a/an {singular noun 2}”

from which can be assumed

“{proper noun} has probably a/an {singular noun 3}”

---

“Every {singular noun 1} has a/an {singular noun 2} and a/an {singular noun 3}”

and

“{proper noun} is a/an {singular noun 3}”

from which can be assumed

“{proper noun} has probably a/an {singular noun 2}”

---

## Examples:

---

Variables: proper noun = “Michael”, singular noun 1 = “family”, singular noun 2 = “parent”, singular noun 3 = “child”

> Given: “Michael is a parent.”

•

• Generated conclusion:

< “Michael is part of a family.” (generated by Definition 3b)

•

• Generated assumption:

< “Michael has probably a child.” (generated by Definition 3c)

---

Variables: proper noun = “Adam”, singular noun 1 = “family”, singular noun 2 = “parent”, singular noun 3 = “child”

> Given: “Adam is a child.”

•

• Generated conclusion:

< “Adam is part of a family.” (generated by Definition 3b)

•

• Generated assumption:

< “Adam has probably a parent.” (generated by Definition 3c)

---

**Definition 3d:**

---

“Every {singular noun 1} has a/an {singular noun 2} and a/an {singular noun 3}”

and

“{proper noun} has a/an {singular noun 2 or 3}”

from which can be assumed

“{proper noun} is probably part of a/an {singular noun 1}”

---

**Definition 3e:**

---

“Every {singular noun 1} has a/an {singular noun 2} and a/an {singular noun 3}”

and

“{proper noun} has a/an {singular noun 2}”

from which can be assumed

“{proper noun} is probably a/an {singular noun 3}”

---

“Every {singular noun 1} has a/an {singular noun 2} and a/an {singular noun 3}”

and

“{proper noun} has a/an {singular noun 3}”

from which can be assumed

“{proper noun} is probably a/an {singular noun 2}”

---

## Examples:

---

Variables: proper noun = “Peter”, singular noun 1 = “family”, singular noun 2 = “parent”, singular noun 3 = “child”

> Given: “Peter has a parent.”

•

• Generated assumptions:

< “Peter is probably a child.” (generated by Definition 3e)

< “Peter is probably part of a family.” (generated by Definition 3d)

---

Variables: proper noun = “Ronald”, singular noun 1 = “family”, singular noun 2 = “parent”, singular noun 3 = “child”

> Given: “Ronald has a child.”

•

• Generated assumptions:

< “Ronald is probably a parent.” (generated by Definition 3e)

< “Ronald is probably part of a family.” (generated by Definition 3d)

---

Thinkknowlogy 2023 (Shaking tree)

3251, Guest> #-----  
3251, Guest> # Block 2: Indirect conversions  
3251, Guest> #-----  
3251, Guest> Every family has a parent and a child.  
\*  
\* My conclusions:  
< A parent and a child are part of every family.  
<  
3252, Guest> Michael is a parent.  
\*  
\* My conclusions:  
< Michael is part of a family.  
\*  
\* My assumptions:  
< Michael has probably a child.  
<  
3253, Guest> Adam is a child.  
\*  
\* My conclusions:  
< Adam is part of a family.  
\*  
\* My assumptions:  
< Adam has probably a parent.  
<  
3254, Guest> Peter has a parent.  
\*  
\* My assumptions:  
< Peter is probably a child.  
< Peter is probably part of a family.  
<  
3255, Guest> Ronald has a child.  
\*  
\* My assumptions:  
< Ronald is probably a parent.  
< Ronald is probably part of a family.  
<

Clear your mind. Restart. Undo. Redo. Login as Expert. <more examples>

Read the file "English/reasoning/Scientific challenge". Read the file "English/reasoning/family/family definition".

<back> <change language> <change font> Help.

Allow me to guide you by menu buttons, and by buttons with a predefined sentence.



## Block 3: Grouping of knowledge

### Definition 4:

---

“{proper noun 1} has a/an {singular noun}, called {proper noun 2}”

and

“{proper noun 1} has a/an {singular noun}, called {proper noun 3}”

equals to

“{proper noun 1} has {number: 2} {plural form of singular noun}, called {proper noun 2} and {proper noun 3}”

---

### Example:

---

Variables: proper noun 1 = “Paul”, proper noun 2 = “John”, proper noun 3 = “Anna”, singular noun = “parent”

> Given: “John is a parent of Paul.”

•

• Generated conclusion:

< “Paul has a parent, called John.” (generated by Definition 1)

>

> Given: “Anna is a parent of Paul.”

•

• Generated conclusion:

< “Paul has 2 parent [plural of 'parent' is unknown], called John and Anna.”

>

> Given: “Paul has 2 parents, called John and Anna.”

•

• Detected that the generated conclusion is confirmed:

< “Paul has 2 parent [plural of 'parent' is unknown], called John and Anna.”

•

• Detected: You have entered plural noun “parents”, which was unknown to me.

---

Thinkknowlogy 2023 (Shaking tree)

3256, Guest> #-----  
3256, Guest> # Block 3: Grouping of knowledge  
3256, Guest> #-----  
3256, Guest> John is a parent of Paul.  
\*  
\* My conclusions:  
< Paul has a parent, called John.  
< John is part of a family.  
\*  
\* My assumptions:  
< Paul is probably a child of John.  
< Paul is probably part of a family.  
< John has probably a child, called Paul.  
<  
3257, Guest> Anna is a parent of Paul.  
\*  
\* My conclusions:  
< Paul has 2 parent [plural of 'parent' is unknown], called John and Anna.  
< Anna is part of a family.  
\*  
\* My assumptions:  
< Paul is probably a child of John and Anna.  
< Anna has probably a child, called Paul.  
<  
3258, Guest> Paul has 2 parents, called John and Anna.  
\*  
\* My conclusions that have been confirmed:  
< Paul has 2 parent [plural of 'parent' is unknown], called John and Anna.  
\*  
\* You have entered plural noun "parents", which was unknown to me.  
\*

Clear your mind. Restart. Undo. Redo. Login as Expert. <more examples>

Read the file "English/reasoning/Scientific challenge". Read the file "English/reasoning/family/family definition".

<back> <change language> <change font> Help.

Allow me to guide you by menu buttons, and by buttons with a predefined sentence.

## Block 4: Past tense reasoning

### Definition 5:

---

“{proper noun 1} was a/an/the {singular noun} of {proper noun 2}”

from which can be concluded

“{proper noun 2} has no {singular noun} anymore”

---

“{proper noun 1} was a/an/the {singular noun} of {proper noun 2}”

from which can be concluded

“{proper noun 2} had a/an {singular noun}, called {proper noun 1}”.

---

### Example:

---

Variables: proper noun 1 = “James”, proper noun 2 = “Peter”, singular noun = “father”

> Given: “James was the father of Peter.”

•

• Generated conclusions:

< “Peter has no father anymore.”

< “Peter had a father, called James.”

---

**Definition 6:**

---

“Every {singular noun 1} is a/an {singular noun 2}”

and

“{proper noun} was a/an {singular noun 1}”<sup>1</sup>

from which can be concluded

“{proper noun} was a/an {singular noun 2}”

---

**Example:**

---

Variables: singular noun 1 = “father”, singular noun 2 = “man”, proper noun = “James”

> Given: “Every father is a man.”

•

• Generated conclusion:

< “James was a man.”

---

1 Sentence “James was the father of Peter” of the previous example should be recognized as “James was a father”.

The screenshot shows a window titled "Thinkknowlogy 2023 (Shaking tree)". The main area contains a dialogue between a "Guest" and a "reasoner".

3260, Guest> #-----  
3260, Guest> # Block 4: Past tense reasoning  
3260, Guest> #-----  
3260, Guest> James was the father of Joe.  
\*  
\* My conclusions:  
< Joe has no father anymore.  
< Joe had a father, called James.  
<  
3261, Guest> Every father is a man.  
\*  
\* My conclusions:  
< James was a man.  
<  
3262, Guest> #-----  
3262, Guest> # Natural reasoning construct described by Aristotle; in past tense  
3262, Guest> #-----  
3262, Guest> Every philosopher is mortal.  
3263, Guest> Socrates was a philosopher.  
\*  
\* My conclusions:  
< Socrates was mortal.  
<

Below the dialogue is a control panel with several buttons: "Clear your mind.", "Restart.", "Undo.", "Redo.", "Login as Expert.", and "<more examples>".

There are two text input fields: "Read the file \"English/reasoning/Scientific challenge\"." and "Read the file \"English/reasoning/family/family definition\".".

Below the input fields are four buttons: "<back>", "<change language>", "<change font>", and "Help.".

At the bottom, a line of text reads: "Allow me to guide you by menu buttons, and by buttons with a predefined sentence."

## Block 5: Detection of a conflict and generation of a question

### Definition 7:

---

“Every {singular noun 1} is a/an {singular noun 2} or a/an {singular noun 3}”

is in conflict with

“{proper noun} is a/an {singular noun 2} and a/an {singular noun 3}”

---

“Every {singular noun 1} is a/an {singular noun 2} or a/an {singular noun 3}”

and

“{proper noun} is a/an {singular noun 1}”

from which can be concluded

“{proper noun} is a/an {singular noun 2} or a/an {singular noun 3}”

---

“{proper noun} is a/an {singular noun 2} or a/an {singular noun 3}”

equals to

“Is {proper noun} a/an {singular noun 2} or a/an {singular noun 3}?”

---

### Example:

---

Variables: singular noun 1 = “person”, singular noun 2 = “man”, singular noun 3 = “woman”, proper noun = “Addison”

> Given: “Every person is a man or a woman.”

> Given: “Addison is a man and a woman.”

!

! Detected conflict. This sentence is not accepted, because it is in conflict with:

< “Every person is a man or a woman.”

<

> Given: “Addison is a person.”

•

• Generated question:

< “Is Addison a man or a woman?”

---

### Definition 8:

---

“Is {proper noun} a/an {singular noun 1} or a/an {singular noun 2}?”

and

“{proper noun} is not a/an {singular noun 1}”

from which can be concluded

“{proper noun} is a/an {singular noun 2}”

---

“Is {proper noun} a/an {singular noun 1} or a/an {singular noun 2}?”

and

“{proper noun} is not a/an {singular noun 2}”

from which can be concluded

“{proper noun} is a/an {singular noun 1}”

---

### Example:

---

Variables: proper noun = “Addison”, singular noun 1 = “man”, singular noun 2 = “woman”

> Given: “Addison is not a woman.”

•

• Detected that the generated question has been answered:

< “Is Addison a man or a woman?”

•

• Generated assumption:

< “Addison is probably a man.”

---

The screenshot shows a web browser window titled "Thinkknowlogy 2023 (Shaking tree)". The main content area displays a dialogue between a user (Guest) and a reasoner. The dialogue starts with a separator line, followed by the user's input: "3264, Guest> # Block 5: Detection of a conflict and generation of a question". The reasoner responds with another separator line and the statement: "3264, Guest> Every person is a man or a woman." The user then asks: "3265, Guest> Alex is a man and a woman." The reasoner replies: "! This sentence is not accepted, because it is in conflict with: < Every person is a man or a woman." The user then asks: "3265, Guest> Alex is a person." The reasoner asks: "\* My questions: < Is Alex a man or a woman?" The user replies: "3266, Guest> Alex is not a woman." The reasoner then lists answered questions: "\* My questions that have been answered: < Is Alex a man or a woman?" and assumptions: "\* My assumptions: < Alex is probably a man." Below the dialogue is a control panel with buttons: "Clear your mind.", "Restart.", "Undo.", "Redo.", "Login as Expert.", and "<more examples>". There are two text input fields: "Read the file 'English/reasoning/Scientific challenge'." and "Read the file 'English/reasoning/family/family definition'.". Below these are buttons: "<back>", "<change language>", "<change font>", and "Help.". At the bottom, a message reads: "Allow me to guide you by menu buttons, and by buttons with a predefined sentence."



## Block 6: Archiving of knowledge

### Definition 9:

---

“{proper noun 1} is the {singular noun} of {proper noun 2}”

and

“{proper noun 3} is the {singular noun} of {proper noun 2}”

from which can be concluded

“{proper noun 2} has a new {singular noun}, called {proper noun 3}”

and

“{proper noun 2} has a previous {singular noun}, called {proper noun 1}”

---

### Example:

---

Variables: proper noun 1 = “Donald Trump”, proper noun 2 = “the United States”, proper noun 3 = “Joe Biden”, singular noun = “president”

> Given: “Donald Trump is the president of the United States.”

•

• Generated conclusion:

< “The United States has a president, called Donald Trump.” (generated by Definition 1)

>

> Given: “Joe Biden is the president of the United States.”

•

• Generated conclusions:

< “The United States has a new president, called Joe Biden.”

< “The United States has a previous president, called Donald Trump.”

---

The screenshot shows a web application window titled "Thinkknowlogy 2023 (Shaking tree)". The main content area displays a dialogue between a "Guest" and a "reasoner".

3264, Guest> #-----  
3264, Guest> # Block 6: Archiving of knowledge  
3264, Guest> #-----  
3264, Guest> Donald Trump is the president of the United States.  
\*  
\* My conclusions:  
< The United States has a president, called Donald Trump.  
<  
3265, Guest> Joe Biden is the president of the United States.  
\*  
\* My conclusions:  
< The United States has a new president, called Joe Biden.  
< The United States has a previous president, called Donald Trump.  
<

Below the dialogue, there is a row of buttons: "Clear your mind.", "Restart.", "Undo.", "Redo.", "Login as Expert.", and "<more examples>".

Below the buttons, there are two text input fields: "Read the file \"English/reasoning/Scientific challenge\"." and "Read the file \"English/reasoning/family/family definition\".".

Below the input fields, there are four buttons: "<back>", "<change language>", "<change font>", and "Help.".

At the bottom, there is a text instruction: "Allow me to guide you by menu buttons, and by buttons with a predefined sentence."

## Block 7: Advanced reasoning

The screenshot shows a web application window titled "Thinkknowlogy 2023 (Shaking tree)". The main content area displays a dialogue between a guest and a reasoner. The guest provides two statements: "Every woman is feminine." and "Every man is masculine.". The reasoner responds with several conclusions and assumptions. The interface includes a control panel at the bottom with buttons for "Clear your mind.", "Restart.", "Undo.", "Redo.", "Login as Expert.", and "<more examples>". Below these are two text boxes for reading files: "Read the file 'English/reasoning/Scientific challenge'." and "Read the file 'English/reasoning/family/family definition'.". Further down are buttons for "<back>", "<change language>", "<change font>", and "Help.". At the very bottom, a message reads: "Allow me to guide you by menu buttons, and by buttons with a predefined sentence."

Thinkknowlogy 2023 (Shaking tree)

3269, Guest> #-----  
3269, Guest> # Block 7: Advanced reasoning  
3269, Guest> #-----  
3269, Guest> Every woman is feminine.  
\*  
\* My conclusions:  
< Every woman is not masculine.  
<  
3270, Guest> Every man is masculine.  
\*  
\* My assumptions that have been concluded:  
< Every man is not a woman.  
< Every woman is not a man.  
\*  
\* My conclusions:  
< Every man is not feminine.  
< Every woman is not a father.  
< Every person is masculine or feminine.  
< Every father is masculine.  
< Every father is not feminine.  
< Every father is not a woman.  
< James was masculine.  
< James was not feminine.  
< James was not a woman.  
\*  
\* My assumptions:  
< A man is probably a person.  
< A woman is probably a person.  
< Alex is probably masculine.  
< Alex is probably not feminine.  
< A father is probably a person.  
< James was probably a person.  
<

Clear your mind. Restart. Undo. Redo. Login as Expert. <more examples>

Read the file "English/reasoning/Scientific challenge". Read the file "English/reasoning/family/family definition".

<back> <change language> <change font> Help.

Allow me to guide you by menu buttons, and by buttons with a predefined sentence.

The screenshot shows a window titled "Thinkknowlogy 2023 (Shaking tree)". The main content area displays the following text:

3271, Guest> Every parent is a man or a woman.  
\*  
\* My conclusions:  
< Every parent is masculine or feminine.  
\*  
\* My assumptions:  
< A parent is probably a person.  
< Anna is probably a person.  
< Anna is possibly a woman.  
< Anna is possibly not masculine.  
< Anna is possibly not a man.  
< Anna is possibly not a father.  
< Anna is possibly feminine.  
< John is probably a person.  
< Ronald is possibly a person.  
< Michael is probably a person.  
\*  
\* My questions:  
< Is John masculine or feminine?  
< Is John a man or a woman?  
< Is Ronald masculine or feminine?  
< Is Ronald a man or a woman?  
< Is Michael masculine or feminine?  
< Is Michael a man or a woman?  
<  
3272, Guest> Every father is a man.  
3273, Guest> Every mother is a woman.  
\*  
\* My conclusions:  
< Every mother is feminine.  
< Every mother is not a father.  
< Every mother is not masculine.  
< Every mother is not a man.  
< Every father is not a mother.  
< Every man is not a mother.  
\*  
\* My assumptions:  
< A mother is probably a person.  
<

At the bottom of the window, there is a control panel with several buttons and text boxes:

- Buttons: "Clear your mind.", "Restart.", "Undo.", "Redo.", "Login as Expert.", "<more examples>"
- Text boxes: "Read the file \"English/reasoning/Scientific challenge\".", "Read the file \"English/reasoning/family/family definition\"."
- Buttons: "<back>", "<change language>", "<change font>", "Help."
- Text: "Allow me to guide you by menu buttons, and by buttons with a predefined sentence."

The screenshot shows a web browser window titled "Thinkknowlogy 2023 (Shaking tree)". The main content area displays a logical reasoning challenge with the following text:

3274, Guest> Every parent is a father or a mother.  
\*  
\* My assumptions:  
< Anna is possibly a mother.  
<  
3275, Guest> Every girl is feminine.  
\*  
\* My conclusions:  
< Every girl is not masculine.  
< Every girl is not a man.  
< Every girl is not a father.  
< Every man is not a girl.  
< Every father is not a girl.  
<  
3276, Guest> Every boy is masculine.  
\*  
\* My conclusions:  
< Every boy is not feminine.  
< Every boy is not a girl.  
< Every boy is not a mother.  
< Every boy is not a woman.  
< Every girl is not a boy.  
< Every mother is not a boy.  
< Every woman is not a boy.  
<

Below the text is a control panel with several buttons: "Clear your mind.", "Restart.", "Undo.", "Redo.", "Login as Expert.", and "<more examples>". There are two text input fields: "Read the file 'English/reasoning/Scientific challenge'." and "Read the file 'English/reasoning/family/family definition'.". Below these are four more buttons: "<back>", "<change language>", "<change font>", and "Help.". At the bottom of the control panel, there is a line of text: "Allow me to guide you by menu buttons, and by buttons with a predefined sentence."

Thinkknowlogy 2023 (Shaking tree)

3277, Guest> Every son is a boy or a man.  
\*  
\* My conclusions:  
< Every son is masculine.  
< Every son is not feminine.  
< Every son is not a girl.  
< Every son is not a mother.  
< Every son is not a woman.  
< Every girl is not a son.  
< Every mother is not a son.  
< Every woman is not a son.  
< Paul is masculine.  
< Paul is not a girl.  
< Paul is not a mother.  
< Paul is not a woman.  
< Paul is not feminine.  
\*  
\* My assumptions:  
< A son is probably a person.  
< Paul is probably a person.  
< A boy is probably not a man.  
< A boy is probably a person.  
< A man is probably not a boy.  
<

Clear your mind. Restart. Undo. Redo. Login as Expert. <more examples>

Read the file "English/reasoning/Scientific challenge". Read the file "English/reasoning/family/family definition".

<back> <change language> <change font> Help.

Allow me to guide you by menu buttons, and by buttons with a predefined sentence.

Thinkknowlogy 2023 (Shaking tree)

3278, Guest> Every daughter is a girl or a woman.  
\*

\* My conclusions:  
< Every daughter is feminine.  
< Every daughter is not masculine.  
< Every daughter is not a son.  
< Every daughter is not a boy.  
< Every daughter is not a man.  
< Every daughter is not a father.  
< Every son is not a daughter.  
< Every boy is not a daughter.  
< Every man is not a daughter.  
< Every father is not a daughter.  
< Laura is feminine.  
< Laura is not a son.  
< Laura is not a boy.  
< Laura is not a man.  
< Laura is not a father.  
< Laura is not masculine.

\*  
\* My assumptions:  
< A daughter is probably a person.  
< Laura is probably a person.  
< A girl is probably not a woman.  
< A girl is probably a person.  
< A woman is probably not a girl.

\*  
\* My questions:  
< Is Laura a girl or a woman?  
<

Clear your mind. Restart. Undo. Redo. Login as Expert. <more examples>

Read the file "English/reasoning/Scientific challenge". Read the file "English/reasoning/family/family definition".

<back> <change language> <change font> Help.

Allow me to guide you by menu buttons, and by buttons with a predefined sentence.

## Block 8: Justification reports

The screenshot shows a window titled "Thinkknowlogy 2023 (Shaking tree)". The main area contains a text-based interface with the following content:

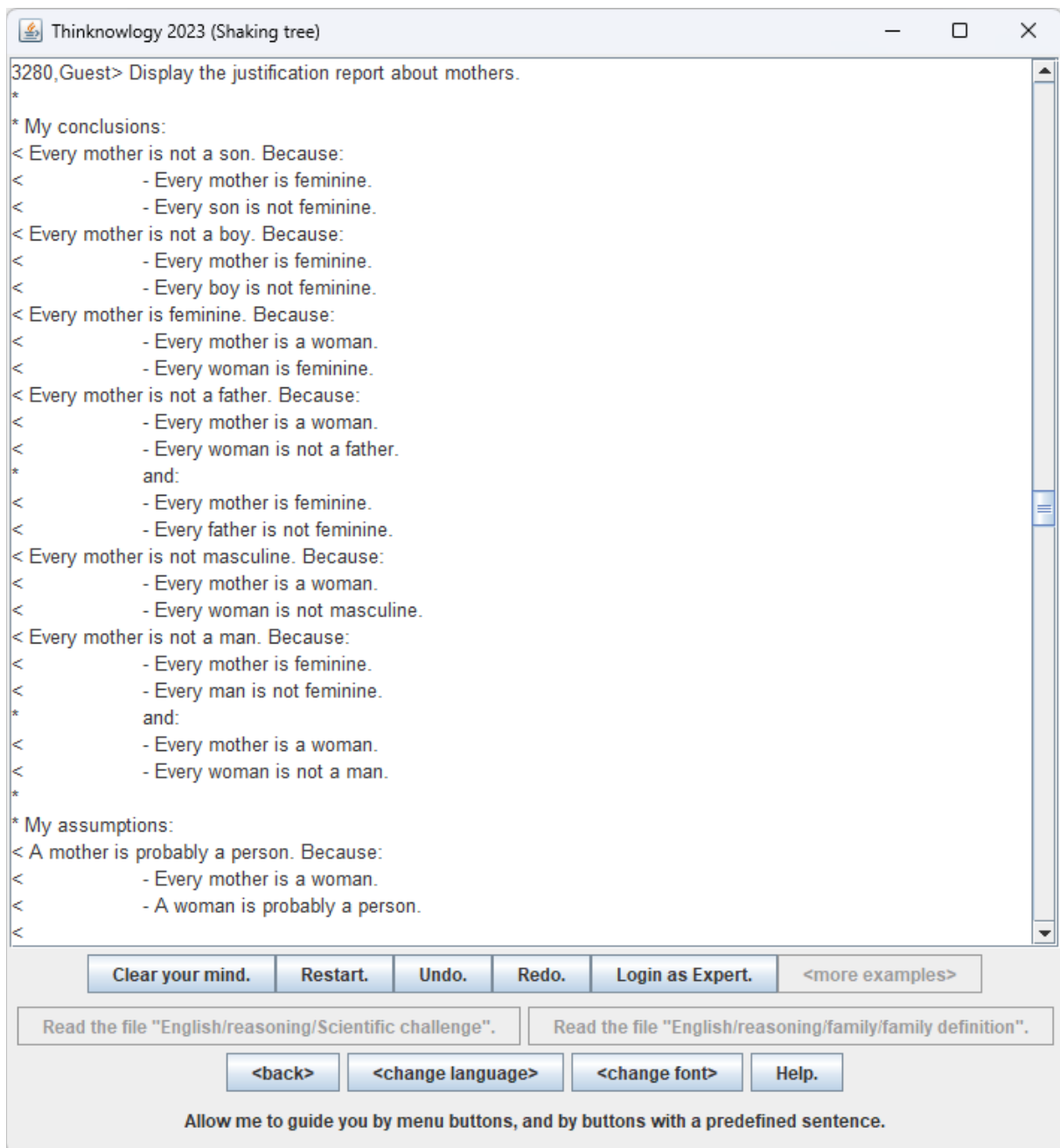
```
3279, Guest> #-----
3279, Guest> # Block 8: Justification reports
3279, Guest> #-----
3279, Guest> Display the justification report about parents.
*
* My conclusions:
< Every parent is masculine or feminine. Because:
<   - Every parent is a father or a mother.
<   - Every mother is feminine.
<   - Every father is masculine.
*   and:
<   - Every parent is a man or a woman.
<   - Every woman is feminine.
<   - Every man is masculine.
*
* My assumptions:
< A parent is probably a person. Because:
<   - Every parent is a father or a mother.
<   - A mother is probably a person.
<   - A father is probably a person.
*   and:
<   - Every parent is a man or a woman.
<   - A man is probably a person.
<   - A woman is probably a person.
<
3279, Guest> Display the justification report about persons.
*
* My conclusions:
< Every person is masculine or feminine. Because:
<   - Every person is a man or a woman.
<   - Every woman is feminine.
<   - Every man is masculine.
<
```

Below the text area is a control panel with several buttons and text boxes:

- Buttons: "Clear your mind.", "Restart.", "Undo.", "Redo.", "Login as Expert.", "<more examples>"
- Text boxes: "Read the file \"English/reasoning/Scientific challenge\".", "Read the file \"English/reasoning/family/family definition\"."
- Buttons: "<back>", "<change language>", "<change font>", "Help."

At the bottom of the control panel, there is a line of text: "Allow me to guide you by menu buttons, and by buttons with a predefined sentence."





Thinkknowlogy 2023 (Shaking tree)

3280, Guest> Display the justification report about mothers.

\*  
\* My conclusions:  
< Every mother is not a son. Because:  
<       - Every mother is feminine.  
<       - Every son is not feminine.  
< Every mother is not a boy. Because:  
<       - Every mother is feminine.  
<       - Every boy is not feminine.  
< Every mother is feminine. Because:  
<       - Every mother is a woman.  
<       - Every woman is feminine.  
< Every mother is not a father. Because:  
<       - Every mother is a woman.  
<       - Every woman is not a father.  
\*       and:  
<       - Every mother is feminine.  
<       - Every father is not feminine.  
< Every mother is not masculine. Because:  
<       - Every mother is a woman.  
<       - Every woman is not masculine.  
< Every mother is not a man. Because:  
<       - Every mother is feminine.  
<       - Every man is not feminine.  
\*       and:  
<       - Every mother is a woman.  
<       - Every woman is not a man.  
\*  
\* My assumptions:  
< A mother is probably a person. Because:  
<       - Every mother is a woman.  
<       - A woman is probably a person.  
<

Clear your mind. Restart. Undo. Redo. Login as Expert. <more examples>

Read the file "English/reasoning/Scientific challenge". Read the file "English/reasoning/family/family definition".

<back> <change language> <change font> Help.

Allow me to guide you by menu buttons, and by buttons with a predefined sentence.

Thinkknowlogy 2023 (Shaking tree)

3281, Guest> Display the justification report about women.

\*  
\* My conclusions:  
< Every woman is not a son. Because:  
<           - Every woman is feminine.  
<           - Every son is not feminine.  
< Every woman is not a boy. Because:  
<           - Every woman is feminine.  
<           - Every boy is not feminine.  
< Every woman is not a father. Because:  
<           - Every woman is feminine.  
<           - Every father is not feminine.  
< Every woman is not masculine. Because:  
<           - Every woman is feminine.  
< Every woman is not a man. Because:  
<           - Every woman is feminine.  
<           - Every man is not feminine.  
\*  
\* My assumptions:  
< A woman is probably not a girl. Because:  
<           - Every daughter is a girl or a woman.  
< A woman is probably a person. Because:  
<           - Every person is masculine or feminine.  
<           - Every woman is feminine.  
<

Clear your mind. Restart. Undo. Redo. Login as Expert. <more examples>

Read the file "English/reasoning/Scientific challenge". Read the file "English/reasoning/family/family definition".

<back> <change language> <change font> Help.

Allow me to guide you by menu buttons, and by buttons with a predefined sentence.

Thinknowlogy 2023 (Shaking tree)

3282, Guest> Display the justification report about Paul.

\*  
\* My conclusions:  
< Paul is masculine. Because:  
<       - Paul is a son of John.  
<       - Every son is masculine.  
< Paul is not a girl. Because:  
<       - Paul is masculine.  
<       - Every girl is not masculine.  
\*       and:  
<       - Paul is a son of John.  
<       - Every son is not a girl.  
< Paul is not a mother. Because:  
<       - Paul is masculine.  
<       - Every mother is not masculine.  
\*       and:  
<       - Paul is a son of John.  
<       - Every son is not a mother.  
< Paul is not a woman. Because:  
<       - Paul is masculine.  
<       - Every woman is not masculine.  
\*       and:  
<       - Paul is a son of John.  
<       - Every son is not a woman.  
< Paul is not feminine. Because:  
<       - Paul is a son of John.  
<       - Every son is not feminine.  
\*  
\* My assumptions:  
< Paul is probably a person. Because:  
<       - Paul is a son of John.  
<       - A son is probably a person.  
< Paul is probably a child of John and Anna. Because:  
<       - Every family has a parent and a child.  
<       - Anna is a parent of Paul.  
<       - John is a parent of Paul.  
\*       and:  
<       - Anna has probably a child, called Paul.  
<       - John has probably a child, called Paul.  
\*       and:  
<       - Every family has a parent and a child.  
<       - Paul has 2 parents, called John and Anna.  
< Paul is probably part of a family. Because:  
<       - Paul is probably a child of John and Anna.  
<       - A child is part of every family.  
\*       and:  
<       - John has probably a child, called Paul.  
<       - A child is part of every family.  
<

Clear your mind. Restart. Undo. Redo. Login as Expert. <more examples>

Read the file "English/reasoning/Scientific challenge". Read the file "English/reasoning/family/family definition".

<back> <change language> <change font> Help.

Allow me to guide you by menu buttons, and by buttons with a predefined sentence.

Thinkknowlogy 2023 (Shaking tree)

3282, Guest> Display the justification report about John.

\*  
\* My conclusions:  
< John is part of a family. Because:  
< - John is a parent of Paul.  
< - A parent is part of every family.  
< John has a son, called Paul. Because:  
< - Paul is a son of John.  
\*  
\* My assumptions:  
< John is probably a person. Because:  
< - John is a parent of Paul.  
< - A parent is probably a person.  
< John has probably a child, called Paul. Because:  
< - Paul is probably a child of John and Anna.  
\* and:  
< - Every family has a parent and a child.  
< - John is a parent of Paul.  
\* and:  
< - Every family has a parent and a child.  
< - Paul has 2 parents, called John and Anna.  
\*  
\* My questions:  
< Is John masculine or feminine? Because:  
< - John is probably a person.  
< - Every person is masculine or feminine.  
\* and:  
< - John is a parent of Paul.  
< - Every parent is masculine or feminine.  
< Is John a man or a woman? Because:  
< - John is probably a person.  
< - Every person is a man or a woman.  
<

Clear your mind. Restart. Undo. Redo. Login as Expert. <more examples>

Read the file "English/reasoning/Scientific challenge". Read the file "English/reasoning/family/family definition".

<back> <change language> <change font> Help.

Allow me to guide you by menu buttons, and by buttons with a predefined sentence.

Thinkknowlogy 2023 (Shaking tree)

3282, Guest> Display the justification report about Anna.

\*  
\* My conclusions:  
< Anna is part of a family. Because:  
< - Anna is a parent of Paul.  
< - A parent is part of every family.  
\*  
\* My assumptions:  
< Anna is probably a person. Because:  
< - Anna is a parent of Paul.  
< - A parent is probably a person.  
< Anna is possibly a mother. Because:  
< - Anna is a parent of Paul.  
< - Every parent is a father or a mother.  
< - Proper noun "Anna" is probably feminine.  
< Anna is possibly not a father. Because:  
< - Anna is possibly a mother.  
< - Every mother is not a father.  
\* and:  
< - Anna is possibly a woman.  
< - Every woman is not a father.  
\* and:  
< - Anna is possibly feminine.  
< - Every father is not feminine.  
< Anna is possibly not masculine. Because:  
< - Anna is possibly a mother.  
< - Every mother is not masculine.  
\* and:  
< - Anna is possibly a woman.  
< - Every woman is not masculine.

Clear your mind. Restart. Undo. Redo. Login as Expert. <more examples>

Read the file "English/reasoning/Scientific challenge". Read the file "English/reasoning/family/family definition".

<back> <change language> <change font> Help.

Allow me to guide you by menu buttons, and by buttons with a predefined sentence.

Thinkknowlogy 2023 (Shaking tree)

< - Anna is possibly a woman.  
< - Every woman is not masculine.  
< Anna is possibly not a man. Because:  
< - Anna is possibly a mother.  
< - Every mother is not a man.  
\* and:  
< - Anna is possibly a woman.  
< - Every woman is not a man.  
\* and:  
< - Anna is possibly feminine.  
< - Every man is not feminine.  
< Anna is possibly a woman. Because:  
< - Anna is possibly a mother.  
< - Every mother is a woman.  
\* and:  
< - Anna is a parent of Paul.  
< - Every parent is a man or a woman.  
< - Proper noun "Anna" is probably feminine.  
< Anna is possibly feminine. Because:  
< - Anna is possibly a woman.  
< - Every woman is feminine.  
\* and:  
< - Anna is possibly a mother.  
< - Every mother is feminine.  
< Anna has probably a child, called Paul. Because:  
< - Every family has a parent and a child.  
< - Anna is a parent of Paul.  
\* and:  
< - Paul is probably a child of John and Anna.  
<

Clear your mind. Restart. Undo. Redo. Login as Expert. <more examples>

Read the file "English/reasoning/Scientific challenge". Read the file "English/reasoning/family/family definition".

<back> <change language> <change font> Help.

Allow me to guide you by menu buttons, and by buttons with a predefined sentence.

Thinkknowlogy 2023 (Shaking tree)

3282, Guest> Display the justification report about Laura.

\*  
\* My conclusions:  
< Laura is feminine. Because:  
< - Laura is a daughter of Anna.  
< - Every daughter is feminine.  
< Laura is not a son. Because:  
< - Laura is feminine.  
< - Every son is not feminine.  
\* and:  
< - Laura is a daughter of Anna.  
< - Every daughter is not a son.  
< Laura is not a boy. Because:  
< - Laura is feminine.  
< - Every boy is not feminine.  
\* and:  
< - Laura is a daughter of Anna.  
< - Every daughter is not a boy.  
< Laura is not a man. Because:  
< - Laura is feminine.  
< - Every man is not feminine.  
\* and:  
< - Laura is a daughter of Anna.  
< - Every daughter is not a man.  
< Laura is not a father. Because:  
< - Laura is feminine.  
< - Every father is not feminine.  
\* and:  
< - Laura is a daughter of Anna.  
< - Every daughter is not a father.  
< Laura is not masculine. Because:  
< - Laura is a daughter of Anna.  
< - Every daughter is not masculine.  
< Laura is a daughter of Anna. Because:  
< - Anna has a daughter, called Laura.  
\*  
\* My assumptions:  
< Laura is probably a person. Because:  
< - Laura is a daughter of Anna.  
< - A daughter is probably a person.  
\*  
\* My questions:  
< Is Laura a girl or a woman? Because:  
< - Laura is a daughter of Anna.  
< - Every daughter is a girl or a woman.  
<

Clear your mind. Restart. Undo. Redo. Login as Expert. <more examples>

Read the file "English/reasoning/Scientific challenge". Read the file "English/reasoning/family/family definition".

<back> <change language> <change font> Help.

Allow me to guide you by menu buttons, and by buttons with a predefined sentence.

Thinkknowlogy 2023 (Shaking tree)

3282, Guest> Display the justification report about Michael.

\*  
\* My conclusions:  
< Michael is part of a family. Because:  
< - Michael is a parent.  
< - A parent is part of every family.  
\*  
\* My assumptions:  
< Michael is probably a person. Because:  
< - Michael is a parent.  
< - A parent is probably a person.  
< Michael has probably a child. Because:  
< - Every family has a parent and a child.  
< - Michael is a parent.  
\*  
\* My questions:  
< Is Michael masculine or feminine? Because:  
< - Michael is probably a person.  
< - Every person is masculine or feminine.  
\* and:  
< - Michael is a parent.  
< - Every parent is masculine or feminine.  
< Is Michael a man or a woman? Because:  
< - Michael is probably a person.  
< - Every person is a man or a woman.  
<

3282, Guest> Display the justification report about Adam.

\*  
\* My conclusions:  
< Adam is part of a family. Because:  
< - Adam is a child.  
< - A child is part of every family.  
\*  
\* My assumptions:  
< Adam has probably a parent. Because:  
< - Every family has a parent and a child.  
< - Adam is a child.  
<

Clear your mind. Restart. Undo. Redo. Login as Expert. <more examples>

Read the file "English/reasoning/Scientific challenge". Read the file "English/reasoning/family/family definition".

<back> <change language> <change font> Help.

Allow me to guide you by menu buttons, and by buttons with a predefined sentence.



Thinkknowlogy 2023 (Shaking tree)

3282, Guest> Display the justification report about Peter.  
\*  
\* My assumptions:  
< Peter is probably a child. Because:  
< - Every family has a parent and a child.  
< - Peter has a parent.  
< Peter is probably part of a family. Because:  
< - Peter is probably a child.  
< - A child is part of every family.  
<  
3282, Guest> Display the justification report about Ronald.  
\*  
\* My assumptions:  
< Ronald is possibly a person. Because:  
< - Ronald is probably a parent.  
< - A parent is probably a person.  
< Ronald is probably a parent. Because:  
< - Every family has a parent and a child.  
< - Ronald has a child.  
< Ronald is probably part of a family. Because:  
< - Ronald is probably a parent.  
< - A parent is part of every family.  
\*  
\* My questions:  
< Is Ronald masculine or feminine? Because:  
< - Ronald is probably a parent.  
< - Every parent is masculine or feminine.  
\* and:  
< - Ronald is possibly a person.  
< - Every person is masculine or feminine.  
< Is Ronald a man or a woman? Because:  
< - Ronald is possibly a person.  
< - Every person is a man or a woman.  
<

Clear your mind. Restart. Undo. Redo. Login as Expert. <more examples>

Read the file "English/reasoning/Scientific challenge". Read the file "English/reasoning/family/family definition".

<back> <change language> <change font> Help.

Allow me to guide you by menu buttons, and by buttons with a predefined sentence.

Thinkknowlogy 2023 (Shaking tree)

3284, Guest> Display the justification report about James.

\*  
\* My conclusions:  
< James was a man. Because:  
<       - James was the father of Joe.  
<       - Every father is a man.  
< James was masculine. Because:  
<       - James was a man.  
<       - Every man is masculine.  
\*       and:  
<       - James was the father of Joe.  
<       - Every father is masculine.  
< James was not a woman. Because:  
<       - James was a man.  
<       - Every man is not a woman.  
\*       and:  
<       - James was masculine.  
<       - Every woman is not masculine.  
\*       and:  
<       - James was the father of Joe.  
<       - Every father is not a woman.  
< James was not feminine. Because:  
<       - James was a man.  
<       - Every man is not feminine.  
\*       and:  
<       - James was the father of Joe.  
<       - Every father is not feminine.  
\*  
\* My assumptions:  
< James was probably a person. Because:  
<       - James was a man.  
<       - A man is probably a person.  
\*       and:  
<       - James was the father of Joe.  
<       - A father is probably a person.  
<

Clear your mind. Restart. Undo. Redo. Login as Expert. <more examples>

Read the file "English/reasoning/Scientific challenge". Read the file "English/reasoning/family/family definition".

<back> <change language> <change font> Help.

Allow me to guide you by menu buttons, and by buttons with a predefined sentence.

Thinkknowlogy 2023 (Shaking tree)

3282, Guest> Display the justification report about Joe.  
\*  
\* My conclusions:  
< Joe has no father anymore. Because:  
< - Joe had a father, called James.  
< Joe had a father, called James. Because:  
< - James was the father of Joe.  
<  
<  
3282, Guest> Display the justification report about Socrates.  
\*  
\* My conclusions:  
< Socrates was mortal. Because:  
< - Socrates was a philosopher.  
< - Every philosopher is mortal.  
<  
<  
3282, Guest> Display the justification report about Alex.  
\*  
\* My assumptions:  
< Alex is probably masculine. Because:  
< - Alex is probably a man.  
< - Every man is masculine.  
< Alex is probably not feminine. Because:  
< - Alex is probably a man.  
< - Every man is not feminine.  
< Alex is probably a man. Because:  
< - Alex is a person.  
< - Every person is a man or a woman.  
< - Alex is not a woman.  
<  
<  
3282, Guest> Display information about Alex.  
\*  
\* Your information:  
< Alex is not a woman.  
< Alex is a person.  
\*  
\* My assumptions:  
< Alex is probably masculine.  
< Alex is probably not feminine.  
< Alex is probably a man.  
<  
3282, Guest> # To continue, click button «Clear your mind.» or «Restart.».  
3281, Guest>

Clear your mind. Restart. Undo. Redo. Login as Expert. <more examples>

Read the file "English/reasoning/Scientific challenge". Read the file "English/reasoning/family/family definition".

<back> <change language> <change font> Help.

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