Templates used by the 3rd algorithm

Yes-No 2 particular 1 relation

1a. Does a <T_NOUN> <OP_VERB> a <T_NOUN>?
1b. Does a <T_NOUN> <OP_VERB_PREP> a <T_NOUN>?
1c. Does a <T_NOUN> <OP_HAS_NOUNS> that is a <T_NOUN>?
3. Is a <T_NOUN> <OP_IS_NOUNS_PREP> a <T_NOUN>?
4a. Is a <T_NOUN> <OP_IS_PARTICIPLE_BY> a <T_NOUN>?
4b. Is a <T_NOUN> <OP_IS_PARTICIPLE_PREP> a <T_NOUN>?

Yes-No 2 particular 1 relation + quantifier

5a. Does a <T_NOUN> <OP_VERB> <Quantifier-only> a <T_NOUN>?
5b. Does a <T_NOUN> <OP_VERB_PREP> <Quantifier-only> a <T_NOUN>?
5c. Does a <T_NOUN> <OP_HAS_NOUNS> that is <Quantifier-only> a <T_NOUN>?
6a. Does a <T_NOUN> <OP_VERB> <Quantifier-some> <Thing>?
6b. Does a <T_NOUN> <OP_VERB_PREP> <Quantifier-some> <T_NOUN>?
6c. Does a <T_NOUN> <OP_HAS_NOUNS> that is <Quantifier-some> <T_NOUN>?
7a. Is a <T_NOUN> <OP_IS_NOUNS_PREP> <Quantifier-some> <T_NOUN>?
7b. Is a <T_NOUN> <OP_IS_PARTICIPLE_BY> <Quantifier-some> <T_NOUN>?
8a. Is a <T_NOUN> <OP_IS_NOUNS_PREP> <Quantifier-only> a <T_NOUN>?
8b. Is a <T_NOUN> <OP_IS_PARTICIPLE_BY> <Quantifier-only> a <T_NOUN>?

Yes-No 1 particular 1 relation

9. Does a <thing> <Perdurant>?

Equivalence

13. Are there any differences between a <Endurant> and a <Endurant>?
14. Are there any differences between <Perdurant> and <Perdurant>?

True-False

16a. True or false: A <T_NOUN> <OP_VERB> a <T_NOUN>.
16b. True or false: A <T_NOUN> <OP_VERB_PREP> a <T_NOUN>.
16c. True or false: A <T_NOUN> <OP_HAS_NOUNS> that is a <T_NOUN>.
17a. True or false: A <T_NOUN> is <OP_IS_NOUNS_PREP> a <T_NOUN>.
17b. True or false: A <T_NOUN> is <OP_IS_PARTICIPLE_BY> a <T_NOUN>.
18a. A <T_NOUN> <OP_VERB> a <T_NOUN>. True or false?
18b. A <T_NOUN> <OP_VERB_PREP> a <T_NOUN>. True or false?
18c. A <T_NOUN> <OP_HAS_NOUNS> that is a <T_NOUN>. True or false?
19a. A <T_NOUN> is <OP_IS_NOUNS_PREP> a <T_NOUN>. True or false?
19b. A <T_NOUN> is <OP_IS_PARTICIPLE_BY> a <T_NOUN>. True or false?

True-False + quantifier

20a. True or false: A <T_NOUN> is <OP_IS_NOUNS_PREP> <Quantifier-some> <T_NOUN>.
20b. True or false: A <T_NOUN> is <OP_IS_PARTICIPLE_BY> <Quantifier-some> <T_NOUN>.
20c. True or false: A <T_NOUN> is <OP_IS_NOUNS_PREP> <Quantifier-only> a <T_NOUN>.
20d. True or false: A <T_NOUN> is <OP_IS_PARTICIPLE_BY> <Quantifier-only> a <T_NOUN>.
21a. True or false: A <T_NOUN> <OP_VERB> <Quantifier-only> a <T_NOUN>.
21b. True or false: A <T_NOUN> <OP_VERB_PREP> <Quantifier-only> a <T_NOUN>.
21c. True or false: A <T_NOUN> <OP_HAS_NOUNS> that is <Quantifier-only> a <T_NOUN>.
21d. True or false: A <T_NOUN> <OP_VERB> <Quantifier-some> <T_NOUN>.

21e. True or false: A <T_NOUN> <OP_VERB_PREP> <Quantifier-some> <T_NOUN>.
21f. True or false: A <T_NOUN> <OP_HAS_NOUNS> that is <Quantifier-some> <T_NOUN>.
22a. A <T_NOUN> is <OP_IS_NOUNS_PREP> <Quantifier-some> <T_NOUN>. True or false?
22b. A <T_NOUN> is <OP_IS_PARTICIPLE_BY> <Quantifier-some> <T_NOUN>. True or false?
22c. A <T_NOUN> is <OP_IS_NOUNS_PREP> <Quantifier-only> a <T_NOUN>. True or false?
22d. A <T_NOUN> is <OP_IS_PARTICIPLE_BY> <Quantifier-only> a <T_NOUN>. True or false?
23a. A <T_NOUN> <OP_VERB> <Quantifier-only> a <T_NOUN>. True or false?
23b. A <T_NOUN> <OP_VERB_PREP> <Quantifier-only> a <T_NOUN>. True or false?
23c. A <T_NOUN> <OP_HAS_NOUNS> that is <Quantifier-only> a <T_NOUN>. True or false?
23d. A <T_NOUN> <OP_VERB> <Quantifier-some> <T_NOUN>. True or false?
23e. A <T_NOUN> <OP_VERB_PREP> <Quantifier-some> <T_NOUN>. True or false?
23f. A <T_NOUN> <OP_HAS_NOUNS> that is <Quantifier-some> <T_NOUN>. True or false?

Which 2 particular 1 relation

24a. Which <T_NOUN> <OP_VERB> a <T_NOUN>?
24b. Which <T_NOUN> <OP_VERB_PREP> a <T_NOUN>?
24c. Which <T_NOUN> <OP_HAS_NOUNS> that is a <T_NOUN>?
24d. Which <T_NOUN> is <OP_IS_NOUNS_PREP> a <T_NOUN>?
24e. Which <T_NOUN> is <OP_IS_PARTICIPLE_BY> a <T_NOUN>?

Which 2 particular 1 relation + quantifier

25a. Which <T_NOUN> is <OP_IS_NOUNS_PREP> <Quantifier-some> <T_NOUN>?
25b. Which <T_NOUN> is <OP_IS_PARTICIPLE_BY> <Quantifier-some> <T_NOUN>?
25c. Which <T_NOUN> is <OP_IS_NOUNS_PREP> <Quantifier-only> a <T_NOUN>?
25d. Which <T_NOUN> is <OP_IS_PARTICIPLE_BY> <Quantifier-only> a <T_NOUN>?
25e. Which <T_NOUN> <OP_VERB> <Quantifier-only> a <T_NOUN>?
25f. Which <T_NOUN> <OP_VERB_PREP> <Quantifier-only> a <T_NOUN>?
25g. Which <T_NOUN> <OP_HAS_NOUNS> that is <Quantifier-only> a <T_NOUN>?
25h. Which <T_NOUN> <OP_VERB> <Quantifier-some> <T_NOUN>?
25i. Which <T_NOUN> <OP_VERB_PREP> <Quantifier-some> <T_NOUN>?
25j. Which <T_NOUN> <OP_HAS_NOUNS> that is <Quantifier-some> a <T_NOUN>?

What 1 particular 1 relation

26. What does a <T_NOUN> <OP_VERB>?
27. What does a <T_NOUN> <OP_VERB_PREP>?
28. What is <T_NOUN> <OP_IS_NOUNS_PREP>?
29. What is <T_NOUN> <OP_IS_PARTICIPLE_BY>?

Define

30. Define a <Endurant>.
31. What is a <Endurant>?
32. Define <Perdurant>.
33. What is <Perdurant>?

Comments

We keep the tokens <Endurant> and <Perdurant> to help the algorithm to choose the plausible POS if there are multiple POS (NOUN and VERB) associated with a word.

```
if (isEndurant == true) POS = NOUN
if (isPerdurant == true) POS = VERB
```