

Questionnaire.

Description Logic Syntax

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1 Question: Substitution

$$A \sqsubseteq \exists R.B \quad (1)$$

$$R \sqsubseteq S \quad (2)$$

$$B \sqsubseteq C \quad (3)$$

$$\forall S.C \sqsubseteq D \quad (4)$$

Does $A \sqsubseteq D$ follow from the above?

2 Question: “Complex”

$$\exists Q.B \sqcap \exists R.C \sqsubseteq A \quad (1)$$

$$D \sqsubseteq \exists R.G \quad (2)$$

$$P \sqsubseteq Q \quad (3)$$

$$G \sqsubseteq C \quad (4)$$

$$P(m,n) \quad (5)$$

$$D(m) \quad (6)$$

Does $A \sqsubseteq D$ follow from the above?

3 Question: Simple

$$A \sqsubseteq \forall R.B \quad (1)$$

$$R(a,b) \quad (2)$$

$$A(a) \quad (3)$$

Does $B(b)$ follow from the above?

4 Question: set ops

$$A \sqsubseteq B \sqcup C \quad (1)$$

$$B \sqsubseteq C \quad (2)$$

Does $A \sqsubseteq C$ follow from the above?

5 Question: Negation

$$A \sqsubseteq B \quad (1)$$

$$\neg C \sqsubseteq \neg B \quad (2)$$

Does $A \sqsubseteq C$ follow from the above?

6 Question: Role Chains

$$Q \circ R \sqsubseteq Z \quad (1)$$

$$A \sqsubseteq \exists Q.B \quad (2)$$

$$B \sqsubseteq \exists R.C \quad (3)$$

Does $A \sqsubseteq \exists Z.C$ follow from the above?