

Unificadores → fórmulas átomo substituídas nos termos agem

$$|\mathcal{E}| = m \xrightarrow{\text{unif}} |\mathcal{E}| = 1$$

$|\mathcal{E}| \rightarrow$ cardinalidade (n° de elementos do conjunto)

$\mathcal{E} : \text{Vars} \rightarrow \text{Térms}$

$$\mathcal{E}_1 \mathcal{B} = \dots = \mathcal{E}_m \mathcal{B} \Rightarrow$$
 as fórmulas são iguais

$\mathcal{E} : \text{unificador}$

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Exemplo 1.4.15

$$\mathcal{E} = \{ \mathfrak{f}(a), \mathfrak{f}(a) \} \quad a \rightarrow \text{constante}$$

$a \rightarrow \text{variável}$

$$\mathcal{B} = \{ a/a \} \rightarrow \text{a para } a$$

$$\mathcal{E} \mathcal{B} = \{ \mathfrak{f}(a) \}$$

$$\mathcal{E} = \{ \mathfrak{f}(a), \mathfrak{f}(\mathfrak{f}(a)) \}$$

$$\mathcal{B} = \{ a/a \} \rightarrow \text{a para } \mathfrak{f}(a)$$

$$\mathcal{E} \mathcal{B} = \{ \mathfrak{f}(\mathfrak{f}(a)), \mathfrak{f}(\mathfrak{f}(\mathfrak{f}(a))) \} \quad \mathcal{E} \text{ não é unificador}$$

$$\mathcal{E} = \{ \mathfrak{f}(a), \mathfrak{f}(\mathfrak{f}(a)) \}$$

$$\mathcal{B} = \{ a/a \} \rightarrow \text{unificador + igual (mála)}$$

$a \rightarrow \text{constante}$

$$\mathcal{B} = \{ \mathfrak{f}(a)/a, a/3 \} = \{ a/a \} \Delta \{ \mathfrak{f}(3)/a \}$$

$$\mathcal{E} \mathcal{B} = \{ \mathfrak{f}(\mathfrak{f}(a)) \} \quad \mathcal{B}$$

Conjunto das diferenças

$$\mathcal{E} = \{ \mathfrak{f}(a), \mathfrak{f}(\mathfrak{f}(3)) \} \quad \mathcal{D} = \{ a, \mathfrak{f}(3) \}$$

$$\mathcal{B} = \{ \mathfrak{f}(3)/a \}$$

conjunto diferença

Exemplo 1.4.19

$$\mathcal{E} = \{ P(a,y), P(y, \mathfrak{f}(z)), P(a, \mathfrak{f}(z)) \} \quad a \rightarrow \text{constante} \\ (\text{não pode ser substituído})$$

$$\mathcal{B} = \{ a, \mathfrak{f}(z) \} \quad | \mathcal{E}_0 | = 3 > 1 \quad \text{cardinalidade}$$

$\mathcal{E}_0 = \mathcal{E}; \mathcal{B}_0 = \{ \} \rightarrow$ ambiguidade identidade

$$| \mathcal{E}_0 | = 3 > 1$$

$\mathcal{E}_1 = \mathcal{E}_0; \mathcal{B}_1 = \{ \text{conjunto diferença (ag} \rightarrow \text{dúvida)} \}$

$$\mathcal{D}_1 = \{ y, a, z \}$$

$\mathcal{B}_1 = \{ a/a, a/y \} \Delta \mathcal{B}_0 \quad \text{não é unificador}$

$$\mathcal{E}_1 = \mathcal{E}_0 \mathcal{B}_1 = \{ P(a, \mathfrak{f}(a)), P(a, \mathfrak{f}(a)) \} \quad | \mathcal{E}_1 | = 2 > 1$$

$\mathcal{E}_2 = \mathcal{E}_0; \mathcal{B}_2 = \{ \mathfrak{f}(a), a \}$

$$\mathcal{D}_2 = \{ \mathfrak{f}(a)/a, a/a \} = \{ a/a, a/y, \mathfrak{f}(a)/3 \}$$

$$\mathcal{E}_2 = \mathcal{E}_0 \mathcal{B}_2 = \{ P(a, \mathfrak{f}(a)), P(a, \mathfrak{f}(a)), P(a, \mathfrak{f}(a)) \} \quad | \mathcal{E}_2 | = 1 \quad \text{PARA}$$

Resposta: não unificável + igual $\rightarrow \mathcal{B}_2 = \{ a/a, a/y, \mathfrak{f}(a)/3 \}$

$$\mathcal{E}_2 = \{ P(a, \mathfrak{f}(a)) \}$$

Exemplo 1.4.20

$$\mathcal{E} = \{ P(\mathfrak{f}(a), \mathfrak{f}(a)), P(a, \mathfrak{f}(a)), P(a, \mathfrak{f}(a)) \}$$

$$\mathcal{B} = \mathcal{E}_0; \mathcal{B}_0 = \{ \}, | \mathcal{E}_0 | = 3 > 1$$

$$\mathcal{D}_1 = \{ \mathfrak{f}(a), a, \mathfrak{f}(a) \}$$

$$\mathcal{B}_1 = \{ a/a \}$$

$$\mathcal{E}_1 = \mathcal{E}_0 \mathcal{B}_1 = \{ P(\mathfrak{f}(a), \mathfrak{f}(a)), P(a, \mathfrak{f}(a)), P(a, \mathfrak{f}(a)) \} \rightarrow | \mathcal{E}_1 | = 3 > 1$$

$\mathcal{D}_2 = \mathcal{D}_1 = \{ \mathfrak{f}(a), a \} \rightarrow$ o conjunto não tem variáveis

$\mathcal{B}_2 = \{ \mathfrak{f}(a)/a \}$

$$\mathcal{E}_2 = \mathcal{E}_0 \mathcal{B}_2 = \{ P(\mathfrak{f}(a), \mathfrak{f}(a)), P(a, \mathfrak{f}(a)), P(a, \mathfrak{f}(a)) \} \quad | \mathcal{E}_2 | = 1$$

Resposta: Não é unificável

$$\mathcal{D}_2 = \{ a/a, \mathfrak{f}(a)/a \} \subseteq \mathcal{D}_1 \quad \text{não depende de } a \quad \text{não aceitável}$$

Folha 1

Exemplo 15.2

$$\mathcal{C}_1 = P(a) \vee P(\mathfrak{f}(y)) \vee \mathfrak{f}(g(a))$$

$\mathcal{C}_2 = P(\mathfrak{f}(g)) \vee \mathfrak{f}(g(g))$

$\mathcal{C}_3 = \mathcal{C}_1 \wedge \mathcal{C}_2 \quad \text{não é unificável}$

$$\mathcal{B}_1 = \{ \mathfrak{f}(g(a)), g(a) \}$$

$$\mathcal{B}_2 = \{ \mathfrak{f}(g(g)), g(g) \}$$

$$\mathcal{B}_3 = \{ \mathfrak{f}(g(a)) \wedge \mathfrak{f}(g(g)) \}$$

$$\mathcal{B}_4 = \{ \mathfrak{f}(g(a)) \wedge \mathfrak{f}(g(g)) \}$$

$$\mathcal{B}_5 = \{ \mathfrak{f}(g(a)) \wedge \mathfrak{f}(g(g)) \}$$

$$\mathcal{B}_6 = \{ \mathfrak{f}(g(a)) \wedge \mathfrak{f}(g(g)) \}$$

$$\mathcal{B}_7 = \{ \mathfrak{f}(g(a)) \wedge \mathfrak{f}(g(g)) \}$$

$$\mathcal{B}_8 = \{ \mathfrak{f}(g(a)) \wedge \mathfrak{f}(g(g)) \}$$

$$\mathcal{B}_9 = \{ \mathfrak{f}(g(a)) \wedge \mathfrak{f}(g(g)) \}$$

$$\mathcal{B}_{10} = \{ \mathfrak{f}(g(a)) \wedge \mathfrak{f}(g(g)) \}$$

$$\mathcal{B}_{11} = \{ \mathfrak{f}(g(a)) \wedge \mathfrak{f}(g(g)) \}$$

$$\mathcal{B}_{12} = \{ \mathfrak{f}(g(a)) \wedge \mathfrak{f}(g(g)) \}$$

$$\mathcal{B}_{13} = \{ \mathfrak{f}(g(a)) \wedge \mathfrak{f}(g(g)) \}$$

$$\mathcal{B}_{14} = \{ \mathfrak{f}(g(a)) \wedge \mathfrak{f}(g(g)) \}$$

$$\mathcal{B}_{15} = \{ \mathfrak{f}(g(a)) \wedge \mathfrak{f}(g(g)) \}$$

$$\mathcal{B}_{16} = \{ \mathfrak{f}(g(a)) \wedge \mathfrak{f}(g(g)) \}$$

$$\mathcal{B}_{17} = \{ \mathfrak{f}(g(a)) \wedge \mathfrak{f}(g(g)) \}$$

$$\mathcal{B}_{18} = \{ \mathfrak{f}(g(a)) \wedge \mathfrak{f}(g(g)) \}$$

$$\mathcal{B}_{19} = \{ \mathfrak{f}(g(a)) \wedge \mathfrak{f}(g(g)) \}$$

$$\mathcal{B}_{20} = \{ \mathfrak{f}(g(a)) \wedge \mathfrak{f}(g(g)) \}$$

$$\mathcal{B}_{21} = \{ \mathfrak{f}(g(a)) \wedge \mathfrak{f}(g(g)) \}$$

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