

# Lista de exercícios

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analisa-lista([X|Y], X, Y)

~~Analisa~~:

Obs: consulta  $\rightarrow$  analisa-lista([a<sub>1</sub>, a<sub>2</sub>], X, Y).

②

remove-duplicados([ ], [ ]).

remove-duplicados([X|Y], A) :- member(X, Y), !, remove-duplicados(Y, A).  
remove-duplicados([X|Y], [X|A]) :- remove-duplicados(Y, A).

③

troca([ ], X, Y, [ ]).

~~troca(L, X, Y, L)~~

" ([X|L], X, Y, [Y|L]) :- troca(L, X, Y, L).

" ([Z|L], X, Y, [Z|L]) :- X = Z, troca(L, X, Y, L).

④

ap([ ], A, A).

" ([A|B], C, [A|D]) :- ap(B, C, D).

pot([ ], [ ]).

pot([H|T], [H|T<sub>2</sub>]) :- pot(T, T<sub>2</sub>).

pot([-|T], T<sub>2</sub>) :- pot(T, T<sub>2</sub>).

? não sei prosseguir

⑤

comp(0, [ ]).

comp(N, [-|B]) :- comp(N<sub>1</sub>, B), N is N<sub>1</sub>+1

longer([W|X], [Y|Z]) :- comp(N, [W|X]), comp(N<sub>1</sub>, [Y|Z]), N < N<sub>1</sub>

$$⑥ \quad d_{AB} = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$$

$\text{dist}((A, B), (C, D), \text{DISTANCIA}) :- z \text{ is } ((C - A) \wedge 2) + ((D - B) \wedge 2), z \geq 0,$

$\text{DISTANCIA}$  is  $\text{sqrt}(z)$ .

$$⑧ \quad \text{ele\_n}([A]_-, 1, A).$$

$\text{ele\_n}([-1B], N, X) :- N_1 \text{ is } N - 1, \text{ele\_n}(B, N_1, X), !.$

⑩

$\text{min}([X], X).$

$\text{min}([Y|R], X) :- \text{min}(R, X), X < Y, !.$

$\text{min}([Y]_-, Y).$

⑪  $\text{inter}(X, Y, Z) :- (X > Y), Z = [ ], !.$

$\text{inter}(X, Y, [X|Y]) :- X_1 \text{ is } X + 1, \text{inter}(X_1, Y, Z), !.$

⑫  $\text{mdc}(X, 0, Z) :- !, Z = X.$

$\text{mdc}(X, Y, Z) :- R \text{ is } X \bmod Y, \text{mdc}(Y, R, Z).$