

Solución de la practica de Repetitivos en Prolog.

factorial(0,1):-!.  
factorial(N,F):- N>0,!,N1 is N-1, factorial(N1,F1),F is N\*F1.

divisor(X,Y):- X mod Y =:= 0 ,!, write(Y),nl.

divisor(\_,\_):-!.

reportedivisores(N,C):- C<=N,!,divisor(N,C),C1 is C+1,reportedivisores(N,C1).

reportedivisores(\_,\_):-!.

mcd(A,B,R):- A mod B =:=0,!,R is B.

mcd(A,B,R1):- A1 is B,B1 is A mod B, mcd(A1,B1,R1).

sumadigitos(N,S):- N>0,!,DIG is N mod 10, N1 is N //10, sumadigitos(N1,S1),

S is S1+DIG.

sumadigitos(\_0).

reportereves(N):- N>0,!,DIG is N mod 10, write(DIG), N1 is N //10,

reportereves(N1).

reportereves(\_):-!.

fibonacci(1,1).

fibonacci(2,1).

fibonacci(N,F):- N1 is N-1,N2 is N-2, fibonacci(N1,F1), fibonacci(N2,F2),

F is F1+F2.

reporteterminos(N):- N>0,!,N1 is N-1, reporteterminos(N1),

fibonacci(N,F),write(F),nl.

reporteterminos(\_):-!.

programa1:- write('Ingrese numero : '),

read(N),

factorial(N,F),write('El factorial es: '),

write(F),nl.

programa2:- write('Ingrese numero : '),

read(N),

reportedivisores(N,1).

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programa3:- write('Primer numero : '),  
            read(A),  
            write('Segundo numero : '),  
            read(B),  
            mcd(A,B,M),  
            write('El m.c.d. es : '),  
            write(M),nl.
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programa4:- write('Ingrese valor de un numero: '),  
            read(N),  
            sumadigitos(N,S),  
            write('La suma de digitos es :'),  
            write(S),nl.
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programa5:- write('Ingrese numero : '),  
            read(N),  
            reportereves(N),nl.
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programa6:- write('Ingrese numero : '),  
            read(N),  
            reporteterminos(N).
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