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% FILE:      crypto_nlp_r.pro
% TYPE:      Prolog source
% LINE:      Crypto problem generation and solution - exhaustive search

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%-----

% load some files

:- consult('gv2.pro').
:- consult('comboSETS.pro').
:- consult('io.pro').

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%-----
% The DCG
% -----

sentence --> simpleproblemcommand.
sentence --> simpleproblemquery.
sentence --> randomproblemcommand.
simpleproblemcommand --> [use],numberzzz,[to],[make],goal,[.].
simpleproblemcommand --> [write],goal,[in],[terms],[of],numberzzz,[.].
randomproblemcommand --> [use],[whatever],[to],[make],[whatever],[.].
simpleproblemquery --> [can],[you],[make],goal,separator,numberzzz,[?].
separator --> [from].
separator --> [with].
goal --> number.
numberzzz --> number,[and],number,[and],number,[and],number,[and],number.
numberzzz --> number,number,number,number,[and],number.
numberzzz --> [the],[first],[five],[positive],[numbers].
numberzzz --> [numbers],[zero],[through],[four].
numberzzz --> [numbers],[one],[through],[five].
numberzzz --> [numbers],[two],[through],[six].
numberzzz --> [numbers],[three],[through],[seven].
numberzzz --> [numbers],[four],[through],[eight].
numberzzz --> [numbers],[five],[through],[nine].
numberzzz --> [the],[odd],[numbers].
numberzzz --> [five],pluralnumber.
numberzzz --> [four],pluralnumber,[and],[one],number.
numberzzz --> [one],number,[and],[four],pluralnumber.
numberzzz --> [two],pluralnumber,[and],[three],pluralnumber.
numberzzz --> [three],pluralnumber,[and],[two],pluralnumber.
numberzzz --> [two],pluralnumber,[and],[two],pluralnumber,[and],[one],number.
numberzzz --> [one],number,[and],[two],pluralnumber,[and],[two],pluralnumber.
numberzzz --> [two],pluralnumber,[and],[one],number,[and],[two],pluralnumber.
number --> [zero].
number --> [one].
number --> [two].
number --> [three].
number --> [four].
number --> [five].
number --> [six].
number --> [seven].
number --> [eight].
number --> [nine].
pluralnumber --> [zeros].
pluralnumber --> [ones].
pluralnumber --> [twos].
pluralnumber --> [threes].
pluralnumber --> [fours].

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pluralnumber --> [fives].  
pluralnumber --> [sixes].  
pluralnumber --> [sevens].  
pluralnumber --> [eights].  
pluralnumber --> [nines].
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%-----  
% The recognizer  
%-----  
recognizer :-  
    read_sentences(S),  
sentence(S,[]),  
    write('ok'),ln,  
    recognizer.  
recognizer :-  
    write('Not a sentence...'),nl,  
    recognizer.
```