

```
% library(win_menu) compiled into win_menu 0.00 sec, 33 clauses
Welcome to SWI-Prolog (Multi-threaded, 64 bits, Version 6.4.0)
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```

For help, use `?- help(Topic).` or `?- apropos(Word).`

```
1 ?- consult('~\Documents\CSC366\Assignments\sets\combojets.pro').
```

```
% c:/Users/joshu/Documents/CSC366/Assignments/sets/combojets.pro compiled 0.00 sec, 38 clauses
true.
```

```
2 ?- perm(s(1,2),P).
```

```
P = p(1, 2) ;
```

```
P = p(2, 1).
```

```
3 ?- permutations(1,2).
```

```
12 21
```

```
false.
```

```
4 ?- perm(s(red,yellow,blue),P).
```

```
P = p(red, yellow, blue) ;
```

```
P = p(red, blue, yellow) ;
```

```
P = p(yellow, red, blue) ;
```

```
P = p(yellow, blue, red) ;
```

```
P = p(blue, red, yellow) ;
```

```
P = p(blue, yellow, red).
```

5 ?- permutations(red,yellow,blue).

redyellowblue redblueyellow yellowredblue yellowbluered blueredyellow blueyellowred

false.

6 ?- 7 ?- perm(s(1,2,3,4,5),P).

P = p(1, 2, 3, 4, 5) ;

P = p(1, 2, 3, 5, 4) ;

P = p(1, 2, 4, 3, 5) .

7 ?- permutatons(1,2,3,4,5).

Correct to: "permutations(1,2,3,4,5)"?

Please answer 'y' or 'n'? yes

12345 12354 12435 12453 12534 12543 13245 13254 13425 13452 13524 13542 14235 14253 14325  
14352 14523 14532 15234 15243 15324 15342 15423 15432 21345 21354 21435 21453 21534 21543  
23145 23154 23415 23451 23514 23541 24135 24153 24315 24351 24513 24531 25134 25143 25314  
25341 25413 25431 32145 32154 32415 32451 32514 32541 31245 31254 31425 31452 31524 31542  
34215 34251 34125 34152 34521 34512 35214 35241 35124 35142 35421 35412 42315 42351 42135  
42153 42531 42513 43215 43251 43125 43152 43521 43512 41235 41253 41325 41352 41523 41532  
45231 45213 45321 45312 45123 45132 52341 52314 52431 52413 52134 52143 53241 53214 53421  
53412 53124 53142 54231 54213 54321 54312 54123 54132 51234 51243 51324 51342 51423 51432

false.

8 ?- combos(set(3,8,5),combo(A,B),extras(C)), C is A + B.

A = 3,

B = 5,

C = 8.

9 ?- combos(set(3,7,5,4),combo(A,B),extras(C,D)), X is A \* B, Y is C + D, X=Y.

A = 3,

B = 4,

C = 7,

D = 5,

X = Y, Y = 12 ;

false.

10 ?- combos(set(3,7,5,4),combo(A,B),extras(C,D)).

A = 3,

B = 7,

C = 5,

D = 4 ;

A = 3,

B = 5,

C = 7,

D = 4 ;

A = 3,

B = 4,

C = 7,

D = 5 ;

A = 7,

B = 5,

C = 3,

D = 4 ;

A = 7,

B = 4,

C = 3,

D = 5 ;

A = 5,

B = 4,

C = 3,

D = 7.

11 ?- halt.