

Program 1: write a prolog in prolog calculate addition of two number.

Code : `sum(X,Y):-`

`S is X+Y,`

`write('Sum is: '),write(S).`

output:

```
sum(10,15).  
Sum is: 25  
true
```

Program 2: write a prolog in prolog to find maximum of two number.

Code: `max(X,Y):-`

`X=Y,`

`write('both are equal')`

`;`

`X>Y,`

`Z is X,`

`write(Z)`

`;`

`Z is Y,`

`write(Z).`

output:

```
max(15,46).  
46  
true
```

Program 3: write a prolog in prolog that take number N from the user and count from N to 10.

Code : count(11).

count(N):-

write(N),nl,

X is N+1,

count(X).

output:

```
 count(5).  
5  
6  
7  
8  
9  
10  
true
```

Program 4: write a prolog in prolog that take number N from the user and count from N to 1.

Code: loop(0).

loop(N):-N>0,

write(N),nl,

X is N-1,

loop(X).

output:

```
 loop(7).  
7  
6  
5  
4  
3  
2  
1  
true
```

Program 5: write a prolog in prolog that take number N from the user calculate factorial of number.

Code: factorial(0, 1).

factorial(N, X) :-

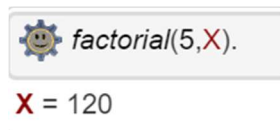
N > 0,

Y is N - 1,

factorial(Y, Z),

X is Z * N.

Output:



A screenshot of a Prolog console window. The top bar shows a gear icon and the text 'factorial(5,X)'. Below the bar, the text 'X = 120' is displayed.

Program 6: write a prolog in prolog that take number N from the user calculate square of number from N to 20 and display it.

Code: squares(21).

squares(N) :-

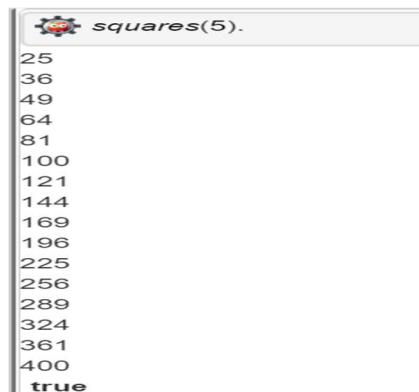
Y is N * N,

write(Y), nl,

M is N + 1,

squares(M).

output:



A screenshot of a Prolog console window. The top bar shows a gear icon and the text 'squares(5)'. Below the bar, a list of numbers is displayed: 25, 36, 49, 64, 81, 100, 121, 144, 169, 196, 225, 256, 289, 324, 361, 400. At the bottom, the text 'true' is displayed.