



Prolog Questions

1. Implement a rule called `students_of(Prof, Student)`, which is going to return the list of students of particular professor, based on the following Knowledge Base:

```
% lectures(X, Y): person X lectures in
course Y
```

```
lectures(turing, 9020).
lectures(codd, 9311).
lectures(backus, 9021).
lectures(ritchie, 9201).
lectures(minsky, 9414).
lectures(codd, 9314).
```

```
% studies(X, Y): person X studies
in course Y
```

```
studies(fred, 9020).
studies(jack, 9311).
studies(jill, 9314).
studies(jill, 9414).
studies(henry, 9414).
studies(henry, 9314).
```

2. Implement a rule called `employees(DeptNum, InputSal, First, Last)`, which is going to print the list of employees in a given department **or** the list of Employees with a salary less than given, based on the following Knowledge Base

```
employee(193,'Jones','John','173 Elm St.','Hoboken','NJ', 12345,1,'25 Jun 93',25500).
employee(181,'Doe','Betty','11 Spring St.','Paterson','NJ', 12354,3,'12 May 91',28500).
employee(127,'Jack','Williams','13 Stuart St.','Kingston','NJ', 12445,3,'27 Sep 92',29950).
```

3. Implement recursively a rule for calculating factorial of a given number.
4. Implement a function declared as `find_max(X, Y, Max)`, which is going to store maximum of X and Y in Max.

Sample Run:

```
?- find_max(5,3,Max).
Max = 5 .
```

```
?- find_max(2,3,Max).
Max = 3.
```