

Rules

- You have 70 minutes.
- I only accept hand written solutions.
- Take a picture when you are finished and send it to me via email.
- **No communication:** You have to work alone.
- You can use all my notes, your own notes, run bnfc, run a C++ compiler.

Question 1

Write down, in the form of a proof tree, the steps taken by a type checker on the following C++ program fragment.

```
int x,y;  
{  
    x = y = 2;  
    int y = 3;  
}  
y = 2*x;
```

Question 2

Write down, in the form of a proof tree, the steps taken by an interpreter on the code fragment above.