

## Exercise for week 5

Consider the following code:

```
int y;  
int b;  
  
int main()  
{  
  y=6;  
  b=11;  
  if y>1 {y = g(y,y-1)};  
  return 0  
};  
  
int g(int b, int a)  
{  
  int y;  
  if b>1 {y = h(b-1,b) ; y = y*(b-1)} else {y = 1};  
  return y  
};  
  
int h(int b, int a)  
{  
  int y;  
  if b>1 {y = g(b-1,b); y = y*(b-1)} else {y = 1};  
  return y  
}
```

1. For each configuration  $C^x$  below illustrate the  $C^0$  configuration and the memory map of the MIPS configuration. (40 credit points)
2. For each configuration  $C^x$  below specify  $ba(y, C^x)$  and  $ba(b, C^x)$ . (60 credit points)
  - $C^0$  before the first call of  $g$ .
  - $C^1$  after the first call of  $g$ .
  - $C^2$  after the call of  $g, h, g$ .