

## Homework 5

1. Consider the assembly code below. Fix all obvious mistakes in the code. After each instruction executes, fill in the blanks on the right. Assume and use decimals for this problem.

```
92    movw  r2, #2
96    movw  sp, #12
100   movw  r0, #1
104   movw  r1, #3
108   bl    mysub
112   teq   r0, r2      // r0=_____ r1=_____ r2=_____
forever
116   b forever
mysub
120   push  {r0,lr}      //sp=_____
124   eor   r0, r1      //r0=_____
128   pop   {r1,r2,lr}  //pc=_____ lr=_____ sp=_____
132   bl    mysub2     //sp=_____
136   bx    r14
mysub2
140   push  {r1,lr}      //sp=_____
144   eor   r2, r1      //r2=_____
148   pop   {r2,lr}      //pc=_____ lr=_____ sp=_____
92    movw  r2, #2
*96   movw  sp, #16
100   movw  r0, #1
104   movw  r1, #3
108   bl    mysub
112   teq   r0, r2      // r0=____1____ r1=____3____ r2=____2_____
forever
116   b forever
mysub
120   push  {r0,lr}      //sp=____8_____
124   eor   r0, r1      //r0=____2_____
*128   bl    mysub2     //sp=____8_____
*132   pop   {r0,lr}      //pc=____136____ lr=____113____ sp=____16_____
136   bx    r14
mysub2
*140   push  {r2,lr}      //sp=____0_____
144   eor   r2, r1      //r2=____1_____
148   pop   {r2,lr}      //pc=____152____ lr=____133____ sp=____8_____
*152   bx    r14
```