1. What is the output of the following Reduced-C program:

```c
int a = 6;

function : int foo( int x, int & y )
{
    int z = y;
    ++x;
    --y;
    ++z;
    cout << a << endl;
    cout << x << endl;
    cout << y << endl;
    cout << z << endl;
    return y--;  
}

function : int main()  
{
    int a = 2;
    int b = 9;
    a = foo( b, ::a );
    cout << a << endl;
    cout << b << endl;
    cout << ::a << endl;
    return 0;
}
```

Fill in the blanks below to simulate the above in C. Basically what is really happening under the code.

```c
int foo( ______________ x, ______________ y )
{
    int z = _____________;
    ++ _________;
    -- _________;
    ++z;
    printf( "%d\n", ___________ );
    printf( "%d\n", ___________ );
    printf( "%d\n", ___________ );
    printf( "%d\n", z );
    return _______________
}
```

Parameter passing mode for x ___________________________
Parameter passing mode for y _________________________

 Parameter passing mode for x ___________________________
Parameter passing mode for y _________________________

(over)
2. Use the following to answer the questions below related to most calling conventions discussed in class.

1) Pre-Call (Caller)  2) call/jsr  3) Post-Call (Caller)  4) Prologue (Callee)  5) Epilogue (Callee)

_____ Stores return value into return value location  _____ Retrieves saved return address for return/rts
_____ Allocates space for local variables  _____ Performs initialization of local variables
_____ Copies actual arguments into argument space  _____ Saves registers in callee-save scheme
_____ Retrieves return value from return value location  _____ Saves %pc into the return address location

1) Compile time  2) Run time

Method overriding is resolved at ______.
Method overloading is resolved at ______.

Given the following code where ??? may represent different parameter passing modes:

```
int global = 9;
void foo( int ??? param )
{
  param = 2;
  cout << global << endl;
}

int main()
{
  foo( global );
  cout << global << endl;
  return 0;
}
```

What values do you expect to be printed if the parameter passing mode is

call-by-value?  _______  _______
call-by-reference?  _______  _______
call-by-value/result?  _______  _______

Use the options below to fill in the blanks

A) %pc  D) +4  G) %i0-%i5  J) +0  M) %g0
B) positive  E) negative  H) %o0-%o5  K) -68  N) %o0
C) %fp  F) %sp  I) +68  L) -4  O) %i0

In the SPARC architecture, local variables are stored and accessed with a _____ offset from the
current _____ register. Actual arguments are passed to functions by the caller in the _____ registers and are
retrieved by the callee in the _____ registers. They should be stored in the current/callee's stack frame's formal
parameter area with the first argument stored at offset _____ from the current _____ register. When the callee is
ready to return, the return value is put in the _____ register. Back in the caller, the return value is retrieved from
the _____ register.