

In-Class November 4

Show the memory contents (runtime stack) at the 3 times specified in the code. Assume main frame pointer=#5000 and address of instruction foo in main is #3000. Show Frame pointer contents (R5) at each time.

```
// header stuff
```

```
int foo(int n) {
    int x1=5;
    int i;
    /* Time 1 */ R5=4994
        i= n*x1;
        return i; /* Time 2 - at return, before RET executed */ R5=5000
R6=4997
}

int main()
{ int i=3;
  int j;
  j=foo(i);
  /* Time 3 */ R5=5000
  return 0;
}
```

Address	Time1 (identifier, value)	Time 2 (identifier, value)	Time 3 (identifier, value)
...			
...			
...			
#4986			
#4987			
#4988			
#4989			
#4990			
#4991			
#4992			
#4993	i=?		
#4994	x1=5		
#4995	Old FP= 5000		
#4996	Ret.Addr=x3001		
#4997	Ret.Value	15	
#4998	n=3	n=3	
#4999	j=?	j=?	j=15
#5000	i=3	i=3	i=3
#5001			
...			

