

I. Show the memory and output of the following partial Java programs.

1) **public static void** main(String[ ] args)  
 {  
   **int** x;  
   AClass anObject = **new** AClass( );  
   x = anObject.ex1(1);  
   System.out.println(x);  
 }

**Memory**

x  
6

**public int** ex1(**int** a)  
 {  
   **int** answer;  
   answer = a + 5;  
   **return** answer;  
   System.out.println("Bye");  
 }

a    answer  
1    6

1) (1.5 pts) **Output**

6  
Bye

2) **public static void** main(String[ ] args)  
 {  
   AClass anObject = **new** AClass( );  
   System.out.println(anObject.ex2(4, anObject.ex2(2,3)))  
 }  
**public int** ex2(**int** x, **int** y)  
 {  
   **return** x\*y;  
 }

**Memory**

x    y  
2    3  
4    6

2) (1.5 pts) **Output**

24

OVER

```
3) public static void main(String[ ] args)
{
    AClass anObject = new AClass( );
    float z;
    z = anObject.ex3(2.5);
    System.out.println(z);
    System.out.println("Hey");

    public float ex3(float x)
    {
        System.out.println("Hi");
        x = x + 1.0;
        x = ex3b(x);
        return x;
    }

    public float ex3b(float y)
    {
        System.out.println("Hello");
        y = y + 2.0;
        return y;
    }
}
```

**Memory**

$\underline{z}$   
5.5

$\underline{x}$   
3.5

$\underline{y}$   
5.5

3) (2 pts) **Output**

```
Hi
Hello
5.5
Hey
```