

Practice Test 2, 486, Fall 2009

Given the code below, find the final value of a

```
var a, b, c, i: int;  
var g: Array;  
g = new Array(100);
```

```
function mysterio(a, b: int): int {  
    return a*b;  
}
```

1)
a = 10;
b = a;
a = mysterio(a, b);

2)
a = 20;
b = 10;
a = mysterio(b, b);

3)
a = 1;
b = 2;
for (i=0; i<5; ++i) {
 b = mysterio(a, b);
 a = b;
}

4)
for (i=0; i< 5; ++i) {
 g[i] = i;
}
a = 0;
for (i=0; i<5; ++i) {
 a += g[i];
}

5)
a=0;
for (i=0; i<100; ++i) {
 g[i] = i*i;
 a = g[i];
}

6) Write a loop that will fill g with the first 100 even numbers (2, 4, 6, 8, 10, ...)

7) Write a loop that will subtract 5 from the elements of g that have odd indices.

8) Write a loop that puts the sum of all the elements of g into b.

9) Define a function that takes two integer arguments and returns 1 if they add up to 0 and 0 otherwise.

10) Define a function that takes 4 integer arguments and returns their average.