JS Closures / Scoping exercises

1. What's the result of executing this code and why.

```
function test() {
   console.log(a);
   console.log(foo());

var a = 1;
   function foo() {
     return 2;
   }
}

test();
```

2. What is result?

```
function someFunction(number) {
  function otherFunction(input) {
    return a;
  }
  a = 5;
  return otherFunction;
}

var firstResult = someFunction(9);
 var result = firstResult(2);
```

3. What is the result of the following code? Explain your answer.

```
var fullname = 'John Doe';
var obj = {
  fullname: 'Colin Ihrig',
  prop: {
    fullname: 'Aurelio De Rosa',
    getFullname: function() {
      return this.fullname;
    }
  }
};
```

```
console.log(obj.prop.getFullname());

var test = obj.prop.getFullname;

console.log(test());
```

4. What will you see in the console for the following example?

```
var a = 1;
function b() {
    a = 10;
    return;
    function a() {}
}
b();
console.log(a);
```