

Hand in a stapled, printed copy with your answers.

**Homework: /SI110/The Cyber Battlefield/Programming Parts 5**

1. Write the output for each item in the box:

```
var a = "Montgomery";  
  
(1) alert(a[0]);  
(2) alert(a[1]);  
(3) alert(a[a.length-1]);  
(4) alert(a[a.length]);
```

2. Why did you get the answer that you did for the 4<sup>th</sup> part of #1?

3. What does the following program do?

```
var ins = prompt("enter a string");  
var test = true;  
var i = 0;  
var j = ins.length - 1;  
while(i <= j)  
{  
  if (ins[i] != ins[j])  
  {  
    test = false;  
  }  
  i = i + 1;  
  j = j - 1;  
}  
alert("the answer is " + test);
```

Answer:

4. Write the output for each item in the box:

```
var smith = "Awesome";  
  
(1) alert(smith.charCodeAt(0));  
(2) alert("Awesome".charAt(0));  
(3) alert(String.fromCharCode(65));
```

5. Explain how `.charAt()` and `String.fromCharCode()` work. What table do both rely on?

**SI110 Introduction to Cyber Security**  
**Technical Foundations**

6. The following program does a kind of encryption. You enter a message in all lower-case letters, and it shows you the encrypted message. You do not need to understand the program completely, but you should be able to puzzle this out:

Circle the line(s) (and only the line(s)) of code that actually encrypt the letters from the original message.

```
var M = prompt("enter message in all lower-case letters");
var C = "";
var i = 0;
while(i < M.length)
{
  if (M[i] == " ")
  {
    C = C + " ";
  }
  else
  {
    var k = M.charCodeAt(i) - 97;
    C = C + String.fromCharCode((k + 10) % 26 + 97);
  }
  i = i + 1;
}
alert(C);
```