Worksheet 4: Conditional Expressions

1) What does the term "Conditional Execution" mean?

2) For a single if/else pair how many code paths does it have?

3) What does the command **prompt** do, and how do you use it?

4) What is the purpose of the **isNaN** command?

5) Write a JavaScript snippet to check that
   - Accepts input from the user
   - Tries converts it to a number
   - Check if the user entered a number

6) For the following code block assume x,y,z exists.

```
if(!isNaN(x) && !isNaN(y) && !isNaN(y) ){
    if(x < 0){
        alert("Snowbird");
    } else if(Math.pow(x,2)+Math.pow(y,2)+Math.pow(z,2) <=1){
        alert("goose egg");
    } else if(Math.pow(x,2)+Math.pow(y,2)+Math.pow(z,2) >1 ){
        alert("Blue Angel");
    } else {
        alert("Maverick");
    }
}
```
   - Will the line alert("Maverick") ever execute? Why or why not?
   - When will the line alert("goose egg") execute?
   - For a single pass of the code snippet, what is the maximum and minimum number of alert statements that will be executed.

7) What is the difference between the pages created with each code path?
   filename: IC7.html
```
<!DOCTYPE html>
<head>
     <title>Possible pages</title>
     <meta charset="UTF-8">
     <script src="IC7.js" defer></script>
</head>
<body>
   <h1>Nothing important</h1>
   <div id="output"></div>
</body>
```
   filename:IC7.js
```
var userName = prompt("What is your name?");
var output = document.getElementById("output");
```

```
if(userName >= "Donald Trump"){
    output.innerHTML = userName+":You are richer" +
    " than Donald Trump!";
} else {
    output.innerHTML = "No one is as rich as Donald Trump!";
}
```

8)Write a simple application using prompt for a local coffee company named
MoonDollars and calculate the price.
   1) Ask the user for:
      1. The size of the drink
         a. Regular: $2.00
         b. Medium: $2.50
         c. Large: $3.50
      2. Type of coffee
         a. Espresso based: add $1.00
         b. Drip coffee: no change
         c. Siphon coffee: add $2.00
   2) Display the coffee order and price in the body of the HTML page.