Final Assessment - Another Draft

1. You are given a function isNumber. This function takes one argument and returns true if it is a number and false otherwise. Write a function product that returns the product of two arguments. Return -1 if either of the arguments is not a number.

Topics: mathematical operations, types, type checking, boolean logic

```
product(1, 2) // returns 2
product('dog', 'hello') // returns -1
product('cat', 3) // returns -1
```

2. Write a function called contains that checks if an element exists within an array. The function should take two arguments: an array, and an element to search for within that array. The function should return true if the element is within the array, and false otherwise. You must construct a loop to iterate over the array and check each element. Topics: loops, conditionals, booleans

Examples:

```
contains([1,2,3,4], 2);     // returns true
contains([1,2,3,4], 1);     // returns true
contains([1,2,3,4], 5);     // returns false
contains([1,2,3,4], 'dog'); // returns false
```

3. Write a function that takes a string as an argument. If the string is has even number of letters, the function should return the string with the first letter in upper-case. If the string has an odd number of letters, the function should return the string with the first letter

in lower-case. **hint**: To convert the first letter, use the built-in string methods toUpperCase and toLowerCase. To get the rest of the string use the built-in string method slice.

Topics: modulo, functions, strings

Examples:

```
UpperOrLowerCase('even'); // returns 'Even'
UpperOrLowerCase('Odd'); //returns 'odd'
```

4. Topics: command line Word Bank: ls, cd .., cd, pwd, touch, mkdir
   _____ A. creates new file
   _____ B. navigates to a certain directory
   _____ C. prints the entire file path
   _____ D. creates new folder
   _____ E. prints the contents of the current folder
   _____ F. navigates upwards

5. You are writing a program that calculates the areas of two geometric shapes: triangles and squares. A triangle object has a type property that is set to "triangle", and also height and base properties (both of which are numbers). A square object has a type property that is set to "square" and also a base property (number). You are given the functions triangleArea and squareArea. Create a function shapeArea that takes a shape object as an argument and returns the object's area. If the type is neither "square" nor "triangle", return -1. Topics: functions, objects

```
function triangleArea(base, height){
  return (base * height) / 2
}
```

```
function squareArea(base){
  return base * base
}

function calcArea(shape){

}
```