

### Question 2

```
let dividend = +prompt("Insert a dividend.");
let divisor = +prompt("Insert a divisor.");
if ((dividend % divisor) === 0) {
  alert(The quotient is ${dividend / divisor}.);
} else {
  alert(The quotient is ${Math.floor(dividend /
  divisor)} and the remainder is ${dividend %
  divisor}.);
}
```

Write a script that takes in a dividend and a divisor. With those, alert either the quotient by itself OR the quotient and the remainder if applicable.

### Question 3

```
function cuts(input) {
  let cuts = 0;
  while (input > 1) {
    input /= 2;
    cuts++;
  }
  return cuts;
}
```

Write a function that takes in a number an integer and divides it in half until it becomes 1 or less.

### Question 4

```
function listElements(a, n) {
  if (a.length > n) {
    let result = [];
    for (let i = 0; i < n; i++) {
      result.push(a[i]);
    }
    return result;
  } else {
    return a;
  }
}
```

### Question 4 (cont)

```
}
```

Write a function that takes in array a and returns a new array consisting of the first n elements of the original array. If n is greater than a, then simply return a copy of array a.

### Question 5

```
function compareArrays(a, b) {
  if (a.length !== b.length) {
    return false;
  }
  for (let i = 0; i < a.length; i++) {
    if (a[i] !== b[i]) {
      return false;
    }
  }
  return true;
}
```

Write a function that takes in two arrays, a and b, and returns whether or not the listed elements are equal. Assume that all values are primitive (and not Objects) and that the values must be in the same order. It should also output false if the parameters are not arrays.

### Loops

```
"for" loop      for (begin; condition; step) {
                // ... loop body ... }
                }
```

```
"while" loop    while (condition) {
                //code
                //loop body (i++)
                }
```



### Question 6

```
function capitalizeMiddleCharacter(inputString) {
  let middleLetterPosition =
    Math.ceil(inputString.length / 2);
  return inputString.substring(0, middleLetterPosition)
  +
  inputString.charAt(middleLetterPosition).toUpperCase()
  + inputString.substring(middleLetterPosition + 1,
    inputString.length);
}
```

Write a function which takes in a String and capitalizes the middle letter of the string. If the string is even, then capitalize the character to the right of the middle.

### Question 7

```
function suffixes(inputWord) {
  let result = [""];
  let lastSuffix = "";
  for (let i = inputWord.length - 1; i >= 0; i--) {
    lastSuffix = inputWord.charAt(i) + lastSuffix;
    result.push(lastSuffix);
  }
  return result;
}
```

Write a function which takes in a word and returns an array containing successive suffixes of the word, starting with the last character.

### Question 8

```
function student(name, birthday, email, ID, SSID,
  Major, Minor, enrolled, graduate) {
  this.name = name;
  this.birthday = birthday;
  this.email = email;
  this.ID = ID;
  this.SSID = SSID;
  this.Major = Major;
  this.Minor = Minor;
  this.enrolled = enrolled;
  this.graduate = graduate;
}
```

Write an Object constructor or Class of a human being. It would also be helpful to draw the Object diagram of a few of these.

### Precedence

Operator	Operator Use	Operator Associativity	Operator Precedence
()	Method/function call, grouping	Left to right	Highest - 1
[]	Array access	Left to right	1
.	Object property access	Left to right	1
++	Increment	Right to left	2
--	Decrement	Right to left	2
-	Negation	Right to left	2
!	Logical NOT	Right to left	2
~	Bitwise NOT	Right to left	2
delete	Removes array value or object property	Right to left	2
new	Creates an object	Right to left	2
typeof	Returns data type	Right to left	2
void	Specifies no value to return	Right to left	2
/	Division	Left to right	3
*	Multiplication	Left to right	3
%	Modulus	Left to right	3
+	Plus	Left to right	4
+	String Concatenation	Left to right	4
-	Subtraction	Left to right	4
>>	Bitwise right-shift	Left to right	5
<<	Bitwise left-shift	Left to right	5
>=	Greater than, greater than or equal to	Left to right	6
<=	Less than, less than or equal to	Left to right	6
===	Equality	Left to right	7
!==	Inequality	Left to right	7
===	Identity operator — equal to (and same data type)	Left to right	7
!==	Non-identity operator — not equal to (or don't have the same data type)	Left to right	7
&	Bitwise AND	Left to right	8
^	Bitwise XOR	Left to right	9
	Bitwise OR	Left to right	10
&&	Logical AND	Left to right	11
	Logical OR	Left to right	12
?	Conditional branch	Left to right	13
=	Assignment	Right to left	14
*=, /=, %=, +=, -=, <<=, >>=, &=, ^=,  =	Assignment according to the preceding operator	Right to left	14
,	Multiple evaluation	Left to right	Lowest: 15

