Area of a Triangle

Write a function that takes the base and height of a triangle and `return` its area.

Examples

`triArea(3, 2)` → `3`

`triArea(7, 4)` → `14`

`triArea(10, 10)` → `50`

Notes

- The area of a triangle is: `(base * height) / 2`
- Don't forget to `return` the result.

index.js

index.js > triangleA

```
function triangleA(b,h){
  return((1/2)*b*h);
}

let base=parseInt(prompt("Enter a base of the triangle"));
let height=parseInt(prompt("Enter a height of the triangle"));

console.log (triangleA(base,height));
```

Console Shell

```
Enter a base of the triangle> 4
Enter a height of the triangle> 3
6
Hint: hit control+c anytime to enter REPL.
>
```

Return Something to Me!

Write a function that returns the string `"something"` joined with a space `" "` and the given argument `a`.

Examples

`giveMeSomething("is better than nothing")` → `"something is better than nothing"`

`giveMeSomething("Bob Jane")` → `"something Bob Jane"`

`giveMeSomething("something")` → `"something something`

index.js

index.js > ...

```js
function giveMesomething(hi) {
  return hi;

}
let hi=prompt("Enter some of the words");
console.log("Hello, " +  giveMesomething(hi))
```

Console Shell

```
Enter some of the words> I am Eliza
Hello, I am Eliza
Hint: hit control+c anytime to enter REPL.
>
```

Basketball Points

You are counting points for a basketball game, given the amount of 2-pointers scored and 3-pointers scored, find the final points for the team and return that value.

Examples

```
points(1, 1) → 5

points(7, 5) → 29

points(38, 8) → 100
```

```
ex.js > point2

function basketball(points) {
  total=2*point1+3*point2
  return total

}

let point1=parseInt(prompt("Enter the first point"));
let point2=parseInt(prompt("Enter the second number"));

console.log("The final point is " + basketball(point1,point2))
```

```
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Enter the first point> 4
Enter the second number> 6
The final point is 26
Hint: hit control+c anytime to enter REPL.
>
```
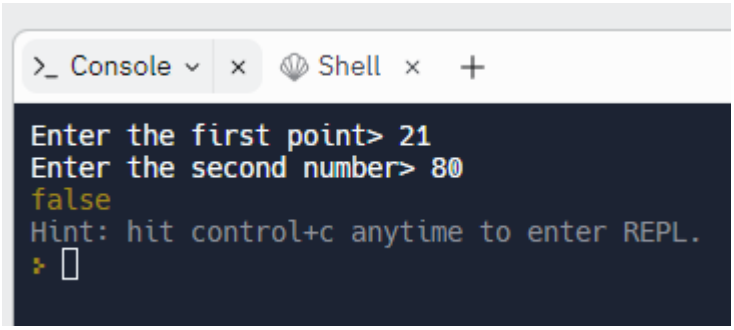

Less Than 100?

Given two numbers, return `true` if the sum of both numbers is less than 100. Otherwise return `false`.

Examples

```
lessThan100(22, 15) → true

// 22 + 15 = 37

lessThan100(83, 34) → false

// 83 + 34 = 117

lessThan100(3, 77) → true
```

```
function check(sum) {
  sum= no1+no2
  return no1+no2<100

}
let no1=parseInt(prompt("Enter the first point"));
let no2=parseInt(prompt("Enter the second number"));
console.log(check(no1,no2))
```



Add up the Numbers from a Single Number

Create a function that takes a number as an argument. Add up all the numbers from 1 to the number you passed to the function. For example, if the input is 4 then your function should return 10 because 1 + 2 + 3 + 4 = 10.

Examples

`addUp(4)` → `10`

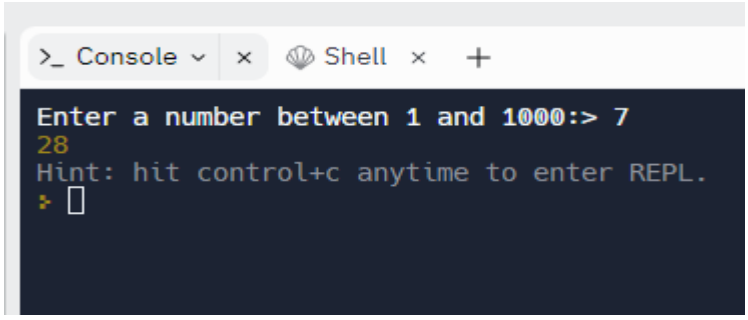
`addUp(13)` → `91`

`addUp(600)` → `180300`

Notes

Expect any positive number between 1 and 1000.

```
function addup() {
  let a = parseInt(prompt("Enter a number between 1 and 1000:"));
  if (a >= 1 && a <= 1000) {
    let sum = 0;
    for (let i = 1; i <= a; i++) {
      sum += i;
    }
    return sum;
  } else {
    console.log("Please enter a number between 1 and 1000.");
  }
}
let total = addup();
console.log(total);
```



Oddish vs. Evenish

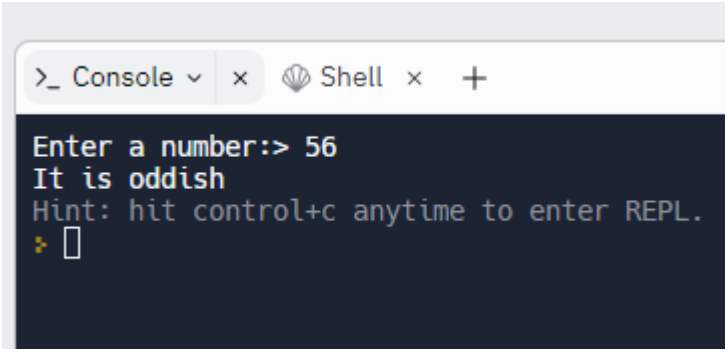
Create a function that determines whether a number is **Oddish** or **Evenish**. A number is **Oddish** if the sum of all of its digits is odd, and a number is **Evenish** if the sum of all of its digits is even. If a number is **Oddish**, return `"Oddish"`. Otherwise, return `"Evenish"`.

For example, `oddishOrEvenish(121)` should return `"Evenish"`, since 1 + 2 + 1 = 4. `oddishOrEvenish(41)` should return `"Oddish"`, since 4 + 1 = 5.

Examples

```
oddishOrEvenish(43) → "Oddish"
// 4 + 3 = 7

// 7 % 2 = 1

oddishOrEvenish(373) → "Oddish"

// 3 + 7 + 3 = 13

// 13 % 2 = 1

oddishOrEvenish(4433) → "Evenish"

// 4 + 4 + 3 + 3 = 14

// 14 % 2 = 0
```

```javascript
//odd_even
function check(num){
  let total = 0;
  while(num > 0){
    total = total + num % 10;
    num = parseInt(num / 10);
  }
  if(total % 2 == 0){
    console.log("It is evenish");
  } else {
    console.log("It is oddish");
  }
}

let userInput = prompt("Enter a number:");
check(userInput);
```



Any Prime Number in Range

Create a function that returns `true` if there's at least one prime number in the given range (`n1` to `n2` (inclusive)), `false` otherwise.

Examples

```
primeInRange(10, 15) → true

// Prime numbers in range: 11, 13

primeInRange(62, 66) → false

// No prime numbers in range.

primeInRange(3, 5) → true

// Prime numbers in range: 3, 5
```

Notes

- `n2` is always greater than `n1`.
- `n1` and `n2` are always positive.
- 0 and 1 aren't prime numbers.

```javascript
function isPrime(num) {
  if (num <= 1) {
    return false;
  }
  for (let i = 2; i <= Math.sqrt(num); i++) {
    if (num % i === 0) {
      return false;
    }
  }
  return true;
}
function primeInRange(n1, n2) {
  let primeFound = false;
  let result = "";
  for (let i = n1; i <= n2; i++) {
    if (isPrime(i)) {
      primeFound = true;
      result += i + " ";
      }
    }
  if (primeFound) {
    console.log(`Prime numbers in range (${n1}, ${n2}): ${result}`);
    return true;
  } else {
    console.log(`No prime numbers in range (${n1}, ${n2}).`);
    return false;
  }
}
let n1 = parseInt(prompt("Enter first number: "));
let n2 = parseInt(prompt("Enter second number: "));
let isPrimeInRange = primeInRange(n1, n2);
console.log(`Result: ${isPrimeInRange}`);
```

```
>_ Console ×   Shell ×   +

Enter first number: > 2
Enter second number: > 3
Prime numbers in range (2, 3): 2 3
Result: true
Hint: hit control+c anytime to enter REPL.
>
```

Left Shift by Powers of Two

The left shift operation is similar to multiplication by powers of two.

Sample calculation using the left shift operator (`<<`):

```
10 << 3 = 10 * 2^3 = 10 * 8 = 80
-32 << 2 = -32 * 2^2 = -32 * 4 = -128
5 << 2 = 5 * 2^2 = 5 * 4 = 20
```

Write a function that mimics (without the use of <<) the left shift operator and returns the result from the two given integers.

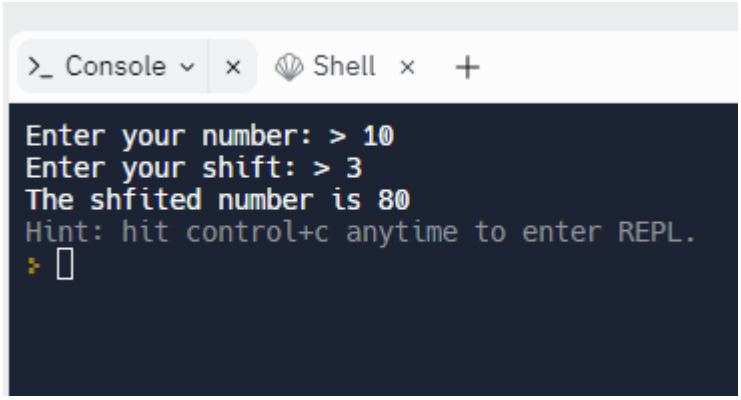
Examples

```
shiftToLeft(5, 2) → 20

shiftToLeft(10, 3) → 80

shiftToLeft(-32, 2) → -128

shiftToLeft(-6, 5) → -192

shiftToLeft(12, 4) → 192

shiftToLeft(46, 6) → 2944
```

Notes

- **There will be no negative values for the second parameter `y`.**
- **This challenge is more like recreating the left shift operation, thus, the use of the operator directly is prohibited.**
- **Alternatively, you can solve this challenge via recursion.**

```javascript
function leftShift(num,shift){
shifted_num = num * Math.pow(2,shift);
return shifted_num;
}
let num = parseInt(prompt("Enter your number: "));
let shift = parseInt(prompt("Enter your shift: "));
console.log(`The shfited number is ${leftShift(num,shift)}`)

const age = [23,34,12,54,23,54,11,9,29,17,15,19,20,21,13,7];
let requiredAge = age.filt
```



Convert a Number to Base-2

Create a function that returns a base-2 (binary) representation of a base-10 (decimal) string number. To convert is simple: ((2) means base-2 and (10) means base-10) 010101001(2) = 1 + 8 + 32 + 128.

Going from right to left, the value of the most right bit is 1, now from that every bit to the left will be x2. The values of an 8 bit binary number are (256, 128, 64, 32, 16, 8, 4, 2, 1).

Examples

```
binary(1) → "1"

// 1*1 = 1

binary(5) → "101"

// 1*1 + 1*4 = 5

binary(10) → "1010"

// 1*2 + 1*8 = 10
```

Notes

- **Numbers will always be below 1024 (not including 1024).**
- **The `&&` operator could be useful.**
- **The strings will always go to the length at which the most left bit's value gets bigger than the number in `decimal`.**
- **If a binary conversion for `0` is attempted, return `"0"`.**

```javascript
function convert(num){
binary = "";
while(num > 0){
binary = binary + (num%2);
num = parseInt(num/2);
}
return binary;
}
let decimal_num = parseInt(prompt("Enter number in decimal:: "))
console.log(`The binary form is ${convert(decimal_num)}`)
```

```
>_ Console   Shell

Enter number in decimal:: > 10
The binary form is 0101
Hint: hit control+c anytime to enter REPL.
>
```