```
/*-----------------------------------------/*
    EXERCICES BEGIN
    */-----------------------------------------
    ------------*/

2.1 Max
You are given two numbers a and b print the
    largest one.

var a = 11
var b = 22

----------------------

2.2 Even or Odd
You are given a number. Print even if the number
    is even or odd otherwise.

let number = 2

----------------------


2.3 Divisibility
You are given two numbers a and b. Print
    "divisible" if a is divisible by b and "not
    divisible" otherwise.

var a = 12
var b = 3

----------------------
```

```
2.4 Two of the same
You are given three variables a, b and c. Check
    if at least two variables have the same
    value. If that is true printAt least two
variables have the same value otherwise print
    All the values are different.

var a = 2
var b = 3
var c = 2

---------------------

2.5 Breakfast

You are working on a smart-fridge. The smart-
    fridge knows how old the eggs and bacon in
    it are. You know that eggs spoil after 3
weeks (21 days) and bacon after one week (7
    days).
Given baconAge and eggsAge(in days) determine if
    you can cook bacon and eggs or what
    ingredients you need to throw out.
If you can cook bacon and eggs print you can
    cook bacon and eggs.
If you need to throw out any ingredients for
    each one print a line with the text throw
    out <ingredient> (where <ingredient> is
bacon or eggs) in any order.

var baconAge = 6 // the bacon is 6 days old
var eggsAge = 12 // eggs are 12 days old

---------------------
```

2.6 Leap Year

You are given a year, determine if it's a leap year. A leap year is a year containing an extra day. It has 366 daysinstead of the normal 365 days. The extra day is added in February, which has 29 days instead of the normal 28 days. Leap years occur every 4 years. 2012 was a leap year and 2016 will also be a leap year.

The above rule is valid except that every 100 years special rules apply. Years that are divisible by 100 are not leap years if they are not also divisible by 400. For example 1900 was not a leap year, but 2000 was. Print Leap year! or Not a leap year! depending on the case.

```
let year = 2014
```

2.7 Coin toss

If you use random() it will give you a random number. Generate a random number and use it to simulate a coin toss. Print heads or tails.

2.8 Min 4

```
You are given four variables a, b, c and d.
    Print the value of the smallest one.

var a = 5
var b = 6
var c = 3
var d = 4

----------------------

2.9 Testing
Test if number is divisible by 3, 5 and 7. For
    example 105 is divisible by 3, 5 and 7, but
    120 is divisible only by 3 and 5 but not by
    7. If number is divisible by 3, 5 and 7
    print number is
divisible by 3, 5 and 7otherwise print number is
    not divisible by 3, 5 and 7.

let number = 210

----------------------

2.10 Point
Find out if the point (x, y) is inside of the
    rectangle with the lower-left corner in
    (lowX, lowY) and the upper-right in (highX,
    highY). Print inside or not inside depending
    on the case.

var x = 1
var y = 2
var lowX = 1
var lowY = 1
```

```
var highX = 3
var highY = 3

---------------------
```

2.11 Hitpoints

```
You are working on a videogame where the
    character has a certain number of hitpoints
    (HP) ranging from 0 to 100.
100 represents full health
0 represents dead.
You want to add regenerating health to the game
    using the following rules:

HP always regenerates up to numbers of the form
    X0 (75 -> 80 , 32 -> 40 …)
When HP is below 20 it regenerates up to 20 (13
    -> 20, 5 -> 20, …)
If the character has 0 HP then he doesn't
    regenerate life (he's dead)
Given the current hp of the character stored in
    a variable hp print the hp the player will
    have after regenerating life.


var hp = 75

---------------------
```

3.1 Chalkboard

```
Write a solution for ... a program that writes
    "I will not skip the fundamentals!" N times.
```

```
var N = 10
```

```
3.2 Squares
Print the first N square numbers. A square
    number, also called perfect square, is an
    integer that is obtained by squaring
some other integer; in other words, it is the
    product of some integer with itself (ex. 1,
    4 = 2 * 2, 9 = 3* 3 …).
```

```
var N = 10
```

```
3.3 Powers of 2
Print the powers of 2 that are less than or
    equal to N.
```

```
3.4 Alternative Counting
Write all the numbers from 1 to N in alternative
    order, one number from the left side
    (starting with one) and one number
from the right side (starting from N down to 1).
```

```
var N = 5
```

3.5 Square
Given an integer N draw a square of N x N asterisks(*).

Example to support your code:
Hint: You'll need to change the bounds of one of the loops.

Example :
```
var N = 2
```
Output:
```
**
**
```

Now You :
```
var N = 4
```

3.6 Rectangle
Given two integers N and M draw a rectangle of N x M asterisks(*).

Example to support your code:
Hint:
- You'll need to change the bounds of one of the loops.

Input:
```
var N = 3
var M = 7
```

```
Output:
*******
*******
*******

Now You :

var N = 3
var M = 7

----------------------
```

3.7 Triangle
Given an integer N draw a triangle of asterisks (*). The triangle should have N lines, the i-th line should have iasterisks on it.

Hint:
- You'll need to change the bounds of one of the loops.

Input:

```
var N = 4
```

Output:

```
*
**
***
****
```

Hint: First you'll want to print a single *.

```
    Then you'll want to print 2 *, then 3 *. How
    many stars will you print at the i-th
    iteration?

Now You :

var N = 3

----------------------

3.8 Fibonacci
Write a program that prints the first N
    Fibonacci numbers. The first two Fibonacci
    numbers are 1, the rest of the elements are
    the sum of the
previous two. The first seven numbers are 1, 1,
    2, 3, 5, 8 and 13.

Hint:
- Use two variables a = 1 and b = 0. At each
    step a should be the i-th Fibonacci number,
    and b the i-1-th.

Now You :

var N = 10

----------------------

3.9 You are given a number. Print the number
    with the digits in reversed order.

Now You :
```

```
var number = 0123456789

----------------------

3.10 Prime numbers
You are given a number. Print "prime" if the
    number is a prime and "not prime" otherwise.
A number is a prime if it has exactly 2 distinct
    divisors (1 and itself).

Hint:
Count the number of divisors of the input
    number.

Now You :

var number = 17
```