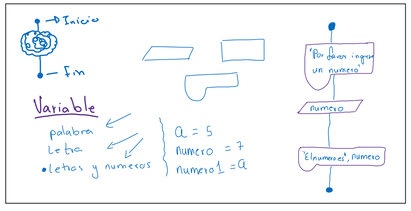
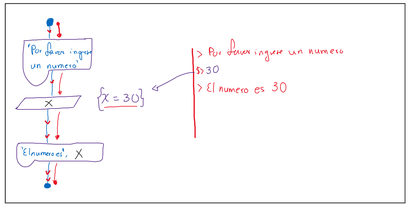
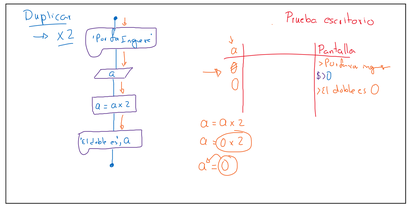
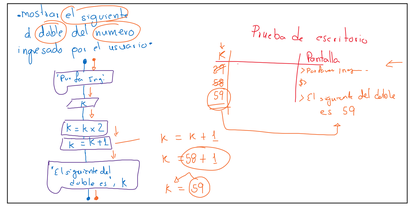
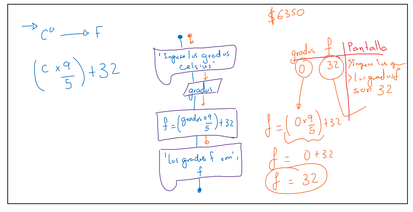
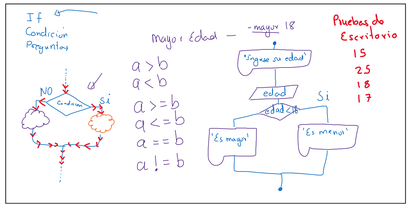

Inicio
Fin
Variable
palabra
Letra
letras y numeros
a = 5
numero = 7
numero1 = a
'Por favor ingrese un numero'
numero
'El numero es', numero

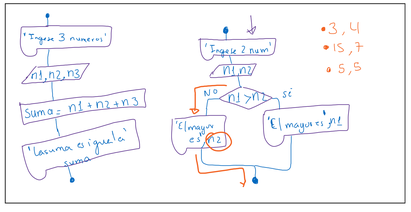

'Por favor ingrese un numero'
x
'El numero es', x
{x = 30}
> Por favor ingrese un numero
> 30
> El numero es 30

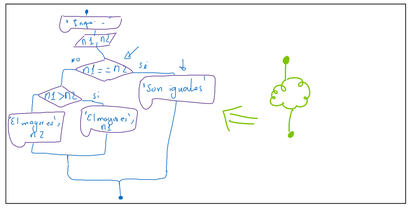

Duplicar
x2
'Por favor ingrese'
a
a = a x 2
'El doble es', a
Prueba escritorio
a
Pantalla
0
> Por favor ingrese
> 30
> El doble es 0
a = a x 2
a = 0 x 2
a = 0

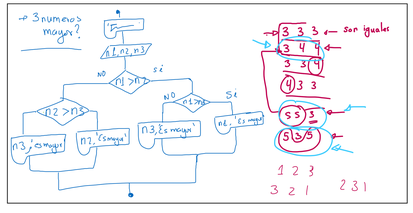

Mostrar el siguiente d doble del numero ingresado por el usuario
Prueba de escritorio
k
Pantalla
> Por favor ingrese
> 29
> El siguiente del doble es 59
'Por favor ingrese'
k
k = k x 2
k = k + 1
'El siguiente del doble es', k
k = k + 1
k = 58 + 1
k = 59

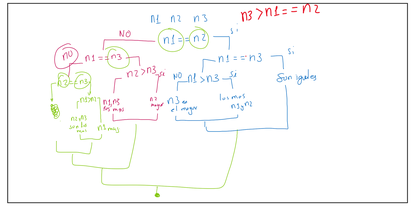

C° → F
(C x 9/5) + 32
'Ingrese los grados celsius'
grados
f = (grados x 9/5) + 32
f
'Los grados f son', f
grados f
0 32
Pantalla
> Ingrese los grados celsius
> 0
> La equivalencia en grados fahrenheit es 32
f = (0 x 9/5) + 32
f = 0 + 32
f = 32

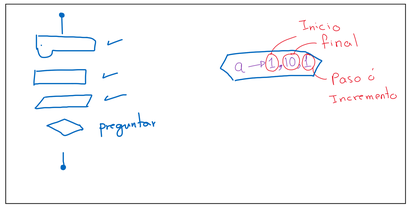

If
Condicion
Preguntas
NO
Condicion
Si
mayor Edad
a > b
a < b
a >= b
a <= b
a == b
a != b
'Ingrese su edad'
edad
edad >= 18
Si
'Es mayor'
'Es menor'
- mayor 18
Pruebas de Escritorio
15
25
18
17

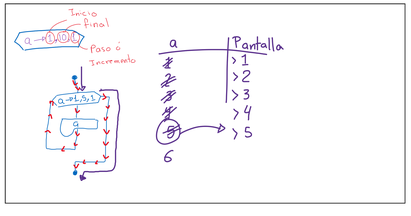

'Ingrese 3 numeros'
n1, n2, n3
suma = n1 + n2 + n3
'La suma es igual a', suma
'Ingrese 2 num'
n1, n2
n1 > n2
NO
Si
'El mayor es', n2
'El mayor es', n1
• 3, 4
• 15, 7
• 5, 5

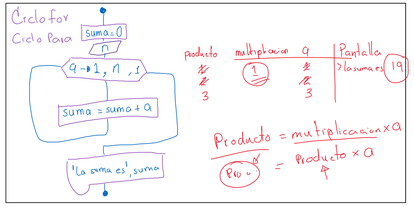

'Ingre...'
n1, n2
n1 == n2
NO
Si
n1 > n2
NO
Si
'El mayor es', n2
'El mayor es', n1
'Son iguales'

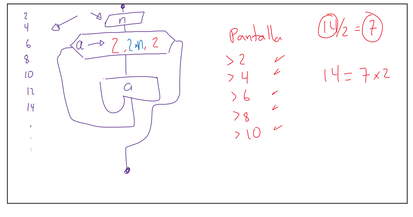

3 numeros mayor?
'Ingrese'
n1, n2, n3
n1 > n2
NO
Si
n2 > n3
NO
Si
n3, 'es mayor'
n2, 'es mayor'
n3, 'es mayor'
n1, 'es mayor'
3 3 3 ← Son iguales
3 3 4
4 3 3
5 5 3
5 3 5
1 2 3
3 2 1
2 3 1

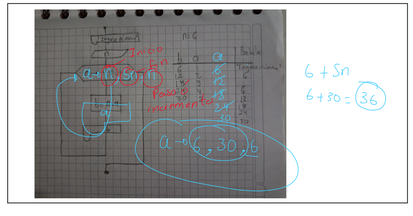

n1 n2 n3
n3 > n1 == n2
NO
n1 == n3
Si
n2 > n3
n1 == n3
Si
n1 > n3
Son iguales
n1 mas
n2 mas
n3 mas
n3 es mayor
n1 es mayor
n2 es mayor

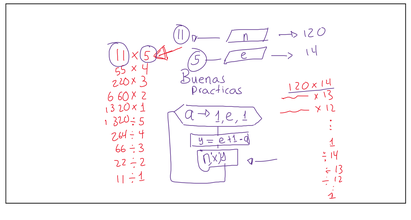

preguntar
Inicio
Final
Paso ó Incremento
a → 1, 10, 1

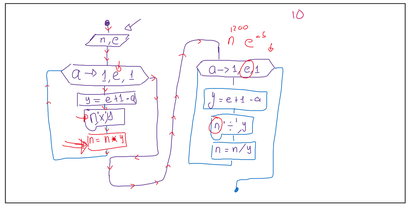

Inicio
Final
Paso ó Incremento
a → 1, 10, 1
a → 1, 5, 1
a
a
Pantalla
> 1
> 2
> 3
> 4
> 5
6

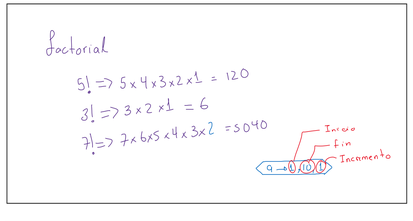

Ciclo for
Ciclo Para
suma = 0
n
a → 1, n, 1
suma = suma + a
'La suma es', suma
Producto
multiplicacion
a
Pantalla
1
> la suma es 19
Producto = multiplicacion x a
Producto = Producto x a

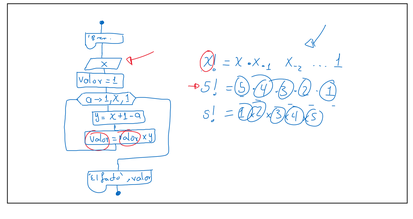

n
a → 2, 2n, 2
a
Pantalla
> 2
> 4
> 6
> 8
> 10
14/2 = 7
14 = 7 x 2

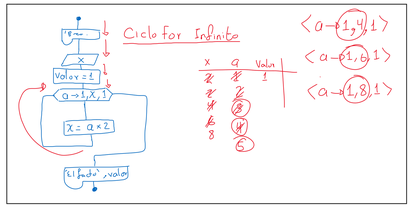

a → n, 5n, n
Inicio
Final
Paso ó Incremento
a → 6, 30, 6
6 + 5n
6 + 30 = 36

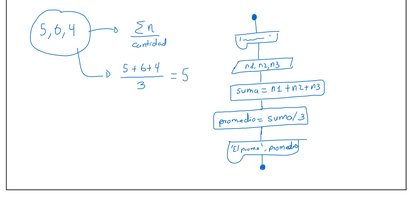

11 x 5
55 x 4
220 x 3
660 x 2
1320 x 1
1320 ÷ 5
264 ÷ 4
66 ÷ 3
22 ÷ 2
11 ÷ 1
11
n
120
5
e
14
Buenas Practicas
a → 1, e, 1
y = e + 1 - a
n = n x y
120 x 14
x 13
x 12
÷ 14
÷ 13
÷ 12
2

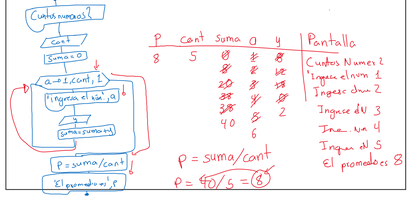

n, e
a → 1, e, 1
y = e + 1 - a
n = n x y
n = n x y
n^200
e^-5
10
a → 1, e, 1
y = e + 1 - a
n = n / y
n = n / y


factorial
5! => 5 x 4 x 3 x 2 x 1 = 120
3! => 3 x 2 x 1 = 6
7! => 7 x 6 x 5 x 4 x 3 x 2 = 5040
Inicio
Fin
Incremento
a → 1, 10, 1


'Ingre...'
x
Valor = 1
a → 1, x, 1
y = x + 1 - a
Valor = valor x y
'El factor', valor
x! = x · x-1 · x-2 ... 1
5! = 5 · 4 · 3 · 2 · 1
5! = 1 · 2 · 3 · 4 · 5


Ciclo for Infinito
'Ingre...'
x
Valor = 1
a → 1, x, 1
x = a x 2
'El factor', valor
x
a
Valor
1
2
4
8
16
32
64
128
< a → 1, 4, 1 >
< a → 1, 6, 1 >
< a → 1, 8, 1 >


5, 6, 4
Σn
cantidad
5 + 6 + 4
3
= 5
'Ingrese'
n1, n2, n3
suma = n1 + n2 + n3
promedio = suma / 3
'El numero', promedio


Cuantos numeros?
cont
suma = 0
a → 1, cont, 1
'Ingrese el num', a
suma = suma + a
p = suma / cont
'El promedio es', p
p
cont
suma
a
4
Pantalla
8
5
0
8
8
12
20
8
16
28
8
24
36
8
32
40
8
40
6
2
Cuantos Numeros?
'Ingrese el num 1
Ingrese dos 2
Ingrese dos 3
Ingrese dos 4
Ingrese dos 5
El promedio es 8
p = suma / cont
p = 40 / 5 = 8