

## Ejercicio A

```
Haskell Run
```

```
1 sumaMonedas a b c d e = (a*1)+(b*2)+(c*5)+(d*10)+(e*20)
2
3 main = do
4   print(sumaMonedas 0 0 0 0 1)
5   print(sumaMonedas 0 0 8 0 3)
6   print(sumaMonedas 1 1 1 1 1)
```

```
ghc -o main main.hs
[1 of 1] Compiling Main           ( main.hs, main.o )
Linking main ...
./main
20
100
38
```

## Ejercicio B

```
1 volumenEsfera r = (4/3)*pi*r^3
2
3 main = do
4   print(volumenEsfera 10)
```

```
ghc -o main main.hs
[1 of 1] Compiling Main           ( main.hs, main.o )
Linking main ...
./main
4188.790204786391
```

## Ejercicio C

```
Haskell Run
```

```
1 areaDeCoronaCircular r1 r2 = pi*(r2^2 - r1^2)
2
3 main = do
4   print(areaDeCoronaCircular 1 2)
5   print(areaDeCoronaCircular 2 5)
6   print(areaDeCoronaCircular 3 5)
```

```
ghc -o main main.hs
[1 of 1] Compiling Main           ( main.hs, main.o )
Linking main ...
./main
9.42477796076938
65.97344572538566
50.26548245743669
```

## Ejercicio D

```
1 ultimaCifra x = rem x 10
2
3 main = do
4   print(ultimaCifra 325)
5
```

```
ghc -o main main.hs
[1 of 1] Compiling Main           ( main.hs, main.o )
Linking main ...
./main
5
```

## Ejercicio E

```
1 maxTres x y z = max x (max y z)
2
3 main = do
4   print(maxTres 6 2 4)
5   print(maxTres 6 7 4)
6   print(maxTres 6 2 9)
```

```
ghc -o main main.hs
[1 of 1] Compiling Main           ( main.hs, main.o )
Linking main ...
./main
6
7
9
```

## Ejercicio F

```
1 rota1 xs = tail xs ++ [head xs]
2
3 main = do
4   print (rota1 [3,2,5,7])
```

```
❖ ghc -o main main.hs
[1 of 1] Compiling Main           ( main.hs, main.o )
Linking main ...
❖ ./main
[2,5,7,3]
❖
```

## Ejercicio G

```
1 rota n xs = drop n xs ++ take n xs
2
3 main = do
4   print (rota 1 [3,2,5,7])
5   print (rota 2 [3,2,5,7])
6   print (rota 3 [3,2,5,7])
```

```
❖ ghc -o main main.hs
[1 of 1] Compiling Main           ( main.hs, main.o )
Linking main ...
❖ ./main
[2,5,7,3]
[5,7,3,2]
[7,3,2,5]
❖
```

## Ejercicio H

```
1 rango xs = [minimum xs, maximum xs]
2
3 main = do
4   print (rango [3,2,7,5])
```

```
❖ ghc -o main main.hs
[1 of 1] Compiling Main           ( main.hs, main.o )
Linking main ...
❖ ./main
[2,7]
❖
```

## Ejercicio I

```
1 palindromo xs = xs == reverse xs
2
3 main = do
4   print (palindromo [3,2,5,2,3])
5   print (palindromo [3,2,5,6,2,3])
6
```

```
❖ ghc -o main main.hs
[1 of 1] Compiling Main           ( main.hs, main.o )
Linking main ...
❖ ./main
True
False
❖
```

## Ejercicio J

```
1 interior xs = tail (init xs)
2
3 main = do
4   print (interior [2,5,3,7,3])
5   print (interior [2..7])
6
```

```
❖ ghc -o main main.hs
[1 of 1] Compiling Main           ( main.hs, main.o )
Linking main ...
❖ ./main
[5,3,7]
[3,4,5,6]
❖
```

## Ejercicio K

```
1 finales n xs = drop (length xs - n) xs
2
3 main = do
4   print (finales 3 [2,5,4,7,9,6])
```

```
❖ ghc -o main main.hs
[1 of 1] Compiling Main           ( main.hs, main.o )
Linking main ...
❖ ./main
[7,9,6]
❖
```

## Ejercicio L

```
1 segmento m n xs = drop (m-1) (take n xs)
2
3 main = do
4   print (segmento 3 4 [3,4,1,2,7,9,0])
```

```
❖ ghc -o main main.hs
[1 of 1] Compiling Main           ( main.hs, main.o )
Linking main ...
❖ ./main
[1,2]
❖
```

## Ejercicio M

```
1 extremos n xs = take n xs ++ drop (length xs - n) xs
2
3 main = do
4   print (extremos 3 [2,6,7,1,2,4,5,8,9,2,3])
5
```

```
❖ ghc -o main main.hs
[1 of 1] Compiling Main           ( main.hs, main.o )
Linking main ...
❖ ./main
[2,6,7,9,2,3]
❖
```

## Ejercicio N

```
1 mediano x y z = x + y + z - minimum [x,y,z] - maximum [x,y,z]
2
3 main = do
4   print (mediano 2 6 6 == 6)
```

```
❖ ghc -o main main.hs
[1 of 1] Compiling Main           ( main.hs, main.o )
Linking main ...
❖ ./main
True
❖
```

## Ejercicio O

```
1 tresIguales x y z = x == y && y == z
2
3 main = do
4   print (tresIguales 4 4 4)
5   print (tresIguales 4 3 4)
```

```
❖ ghc -o main main.hs
[1 of 1] Compiling Main           ( main.hs, main.o )
Linking main ...
❖ ./main
True
False
❖
```

## Ejercicio P

```
1 tresDiferentes x y z = x /= y && x /= z && y /= z
2
3 main = do
4   print (tresDiferentes 3 5 2)
5   print (tresDiferentes 3 5 3)
```

```
❖ ghc -o main main.hs
[1 of 1] Compiling Main           ( main.hs, main.o )
Linking main ...
❖ ./main
True
False
❖
```

## Ejercicio Q

```
1 tresIguales x y z = x == y && y == z
2 cuatroIguales x y z u = x == y && tresIguales y z u
3
4 main = do
5   print (cuatroIguales 5 5 5 5)
6   print (cuatroIguales 5 5 4 5)
```

```
❖ ghc -o main main.hs
[1 of 1] Compiling Main           ( main.hs, main.o )
Linking main ...
❖ ./main
True
False
❖
```

## Ejercicio R

## Ejercicio S

## Ejercicio T

```
divisionSegura _ 0 = 9999
divisionSegura x y = x/y

main = do
  print (divisionSegura 7 2)
  print (divisionSegura 7 0)
```

```
> ghc -o main main.hs
[1 of 1] Compiling Main                ( main.hs, ma
Linking main ...
> ./main
3.5
9999.0
>
```

## Ejercicio U

```
1 mayorRectangulo :: (Num a, Ord a) => (a,a) -> (a,a) -> (a,a)
2 mayorRectangulo (a,b) (c,d) | a*b >= c*d = (a,b)
3                               | otherwise = (c,d)
4
5 main = do
6   print (mayorRectangulo (4,6) (3,7))
7   print (mayorRectangulo (4,6) (3,8))
8   print (mayorRectangulo (4,6) (3,9))
```

```
> ghc -o main main.hs
[1 of 1] Compiling Main                ( main.hs, ma
Linking main ...
> ./main
(4,6)
(4,6)
(3,9)
>
```

## Ejercicio V

## Ejercicio W

## Ejercicio X

## Ejercicio Y

```
1 cuadrante (x,y)
2   | x > 0 && y > 0 = 1
3   | x < 0 && y > 0 = 2
4   | x < 0 && y < 0 = 3
5   | x > 0 && y < 0 = 4
6
7 main = do
8   print (cuadrante (3,5))
9   print (cuadrante (-3,5))
10  print (cuadrante (-3,-5))
11  print (cuadrante (3,-5))
```

```
> ghc -o main main.hs
[1 of 1] Compiling Main                ( main.hs, main.
Linking main ...
> ./main
1
2
3
4
>
```

## Ejercicio Z

```
1 intercambia (x,y) = (y,x)
2
3 main = do
4   print (intercambia (2,5))
5   print (intercambia (5,2))
```

```
> ghc -o main main.hs
[1 of 1] Compiling Main                ( main
Linking main ...
> ./main
(5,2)
(2,5)
>
```