

UNIVERSIDAD NACIONAL AUTÓNOMA DE MÉXICO  
FACULTAD DE CIENCIAS, 2024-I  
INTRODUCCIÓN A CIENCIAS DE LA COMPUTACIÓN



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## PRÁCTICA 02.

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## Indicaciones

Realiza las siguientes actividades de manera individual. Crea un programa .java por separado para cada actividad.

### Actividad 1.

Escribe un programa que mediante métodos estáticos permita realizar las siguientes conversiones de grados:

- (a) °C → °F
- (b) °F → °C
- (c) °K → °C
- (d) °C → °K
- (e) °F → °K
- (f) °K → °F

Símbolo	Significado
°C	Grados Celsius
°F	Grados Fahrenheit
°K	Grados Kelvin

Lee la opción (a-f) y los grados a transformar del teclado.

### Actividad 2.

Escribe un programa que dadas dos cadenas 'A' y 'B', busque e imprima la mayor subcadena de 'A' contenida en 'B'.

**Ejemplo:**

Cadena A: 'abhhbeiruopp'

Cadena B: 'ggqwertybeiruro'

La subcadena **máxima** de A en B es: 'beiruro'

### Actividad 3.

Escribe un programa que imprima en pantalla la siguiente figura:

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*           *
**        **
***     ***
****  ****
***** *****
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Ten en cuenta que el valor de la línea horizontal de mayor tamaño, será leída del teclado.

### Actividad 4.

Escribe un programa que imprima en pantalla la canción de los 12 días de Navidad.

Esta deberá mostrarse de la siguiente forma:



On the first day of Christmas,  
 my true love sent to me  
 A partridge in a pear tree.  
 On the second day of Christmas,  
 my true love sent to me  
 Two turtle doves  
 And a partridge in a pear tree.  
 On the third day of Christmas,  
 my true love sent to me  
 Three French hens,  
 Two turtle doves  
 And a partridge in a pear tree.  
 On the fourth day of Christmas,  
 my true love sent to me  
 Four calling birds,  
 Three French hens,  
 Two turtle doves  
 On the fifth day of Christmas,  
 my true love sent to me  
 Five golden rings,  
 Four calling birds,  
 Three French hens,  
 Two turtle doves  
 And a partridge in a pear tree.  
 On the sixth day of Christmas,  
 my true love sent to me  
 Six geese a-laying,  
 Five golden rings,  
 Four calling birds,  
 Three French hens,  
 Two turtle doves  
 And a partridge in a pear tree.  
 On the seventh day of Christmas,  
 my true love sent to me  
 Seven swans a-swimming,  
 Six geese a-laying,  
 Five golden rings,  
 Four calling birds,  
 Three French hens,  
 Two turtle doves  
 And a partridge in a pear tree.  
 On the eighth day of Christmas,  
 my true love sent to me  
 Eight maids a-milking,  
 And a partridge in a pear tree.  
 Seven swans a-swimming,  
 Six geese a-laying,

Five golden rings,  
 Four calling birds,  
 Three French hens,  
 Two turtle doves  
 And a partridge in a pear tree.  
 On the ninth day of Christmas,  
 my true love sent to me  
 Nine ladies dancing,  
 Eight maids a-milking,  
 Seven swans a-swimming,  
 Six geese a-laying,  
 Five golden rings,  
 Four calling birds,  
 Three French hens,  
 Two turtle doves  
 And a partridge in a pear tree.  
 On the tenth day of Christmas,  
 my true love sent to me  
 Ten lords a-leaping,  
 Nine ladies dancing,  
 Eight maids a-milking,  
 Seven swans a-swimming,  
 Six geese a-laying,  
 Five golden rings,  
 Four calling birds,  
 Three French hens,  
 Two turtle doves  
 And a partridge in a pear tree.  
 On the eleventh day of Christmas,  
 my true love sent to me  
 Eleven pipers piping,  
 Ten lords a-leaping,  
 Nine ladies dancing,  
 Eight maids a-milking,  
 Seven swans a-swimming,  
 Six geese a-laying,  
 Five golden rings,  
 Four calling birds,  
 Three French hens,  
 Two turtle doves  
 And a partridge in a pear tree.  
 On the twelfth day of Christmas,  
 my true love sent to me  
 Twelve drummers drumming,  
 Eleven pipers piping,  
 Ten lords a-leaping,  
 Nine ladies dancing,  
 Eight maids a-milking,  
 Seven swans a-swimming,  
 Six geese a-laying,  
 Five golden rings,  
 Four calling birds,  
 Three French hens,  
 Two turtle doves  
 And a partridge in a pear tree!

No deberán imprimir solamente los versos de la canción, sino tener un programa que use ciclos y condicionales para llevar la secuencia: 1, 2-1, 3-2-1, 4-3-2-1, ..., 12-11-10-...-1.

**Fecha de entrega:** 12 de septiembre antes de medianoche.