



TD1 : Variables and Basic Instructions

Ex 1.1 Temperature conversion

Write a program that requests a temperature T_c , expressed in degrees Celsius, and transforms it into degrees Fahrenheit T_f , given that: $T_f = T_c * 1.8 + 32$.

Ex 1.2 Distance conversion

Write a program that asks the user to enter a distance in kilometers and converts it into miles, such that: 1 kilometer is equivalent to approximately 0,621371 miles. Display distance in miles.

Ex 1.3 Speed conversion

Write a program that asks the user to enter a speed in kilometers per hour (km/h) and converts it into meters per second (m/s).

Using the conversion factor: 1 km/h equals (1000/3600) m/s. Display speed in (m/s).

Ex 1.4 Time conversion

1. Ask the user to enter their trip time in hours, minutes and seconds. Convert this time into seconds and display the result.
2. Ask the user to enter a certain number of seconds and then convert them into hours, minutes, and seconds. Display the result.

Ex 1.5 Weighted average

Write a program that asks the user to enter 3 exam marks (EF, CC, TP) each with its weighting percentage and then calculates and displays the weighted average by multiplying exam mark by its percentage, adding up the results, and dividing by 100.

Ex 1.6 Circle

Write a program that asks the user for the radius of a circle R , then calculates and displays the perimeter P and area A of the circle (Introduce the format for writing a real number).

Knowing that: $P=2*\pi*R$ and $A=\pi*R^2$.

Ex 1.6 Swapping

Write a program in C language that allows the user to enter two values. Then, your program should swap these two values, i.e. the first value entered will become the second, and vice versa. Finally, display both values after swapping.

Example Output:

```
before swapping :  
X=5 , Y=8  
After swapping:  
X=8 , Y=5.
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