



IZMIR INSTITUTE OF TECHNOLOGY  
CENG 113 – Programming Basics  
Laboratory Session: 3

- i. Please try to solve the given exercises on your own until Lab session.
- ii. There will be no upload and no grading for these exercises. However, we strongly encourage you to try to solve these exercises to be familiar with the Python environment and coding for further applications.
- iii. During the lab session, please **do not hesitate** to ask questions on these exercises, or any other questions.

**Exercises:**

1. Write a Python program to evaluate the following mathematical expression for  $x=1, y=4, z=0.25$ .

$$\frac{(2x+y)^2 \sqrt{z}}{\sqrt{x} + \sqrt{y}}$$

2. Write a Python program that asks the user for a number as a temperature in Celsius then converts it to Fahrenheit and prints it.

$$T(^{\circ}F) = T(^{\circ}C) \times 1.8 + 32$$

3. Write a program that asks the user for the length of perpendicular edges of a right triangle, then calculates the hypotenuse and prints it.

*E.g. For the inputs 3 and 4, the output should be 5.*

4. Write a program that solves the following problem:

There are two cars that start at the same time and drive towards each other. Velocity of the cars are fixed at 80 km/h and 70 km/h. At the beginning, the distance between the cars is 490 km. After how many minutes will the distance between them be 150 km?

5. Write a Python program that gets the names ,surnames and grades of 3 students from the user and prints the following sample output:

*Ayşe Can got 35, Deniz Kut got 89 and Mehmet Yel got 73 from the course*