**Q1) Gregor Samsa from “The Metamorphosis”**

Create a file named “samsa.txt” and write the first paragraph of Franz Kafka’s work “The Metamorphosis”. Print the entire content of this file. Then, print the first two lines of the file. Finally, insert an “end of the paragraph” indicator at the end of the paragraph by creating a new line and print the entire file.

"As Gregor Samsa awoke one morning from uneasy dreams he found himself transformed in his bed into a gigantic insect. \nHe was lying on his hard, as it were armor-plated, \nback and when he lifted his head a little he could see his dome-like brown belly divided into stiff arched segments \non top of which the bed quilt could hardly keep in position and was about to slide off completely. \nHis numerous legs, which were pitifully thin compared to the rest of his bulk, waved helplessly before his eyes."

**Q2) Area of a circle**

Write a function that calculates the area of a circle and prints the output (π = 3.14).

**Q3) Body-mass index**

Write a function that returns the body-mass index(kg/m^2) by using the equation 1 in = 2.54 cm. Take the weight(kg) and height(in) values as inputs and define them as floats. Print the results with two digits after the decimal point.

**Q4) Operations on a 2D-plane**

Take the coordinates (x, y) of two points (A and B), which are located on a two-dimensional plane, as inputs and define them as integers. Write two separate functions which return the slope from A to B, and the distance between A and B. Print the results of these calculations.

**Q5) Ideal gas equation**

Write a program that involves functions and takes three integers: Volume in L, temperature in °C and amount of a perfect gas in mol. This program should give two outputs: The temperature in °F and the pressure of this perfect gas. Use the equations below and accept the value of R (ideal gas constant) as 0.08205 (atm*L)/(K*mol).

Perfect (ideal) gas equation: P * V = n * R * T

T(°F) = 1.8* T(°C) + 32

T(K) = T(°C) + 273.15