

Tutorial 1

1. Write the solution for a program that accepts two integers and shows their average.

Input	READ int1, int2
Process	average = (int1 + int2)/2
Output	DISPLAY average

2. Write the solution to find the total price a student needs to pay to print a report when it is known that the charge for printing service is based on per page cost plus 6% service charge.

Input	READ noOfPage, pricePerPage
Process	price = noOfPage * pricePerPage totalPrice = price * 1.06
Output	DISPLAY totalPrice

3. Finn would like to know what percentage of his income his rent is. Write the solution that would calculate and print this percentage.

Input	READ rent, income
Process	percentage = rent/income * 100
Output	DISPLAY percentage

4. Write the solution that will print the total amount of money a person has based on the number of how many 50 cent coins, 20 cent coins, and 10 cent coins he/she has.

Input	READ noOf10Cent, noOf20Cent, noOf50Cent
Process	total = (noOf10Cent * 0.1) + (noOf20Cent * 0.2) + (noOf50Cent * 0.5)
Output	DISPLAY total

5. Write the solution to find the price per square inch of this heart-shaped pizza that consists of a square and a circle (halved) base bread.



Figure 1

Input	READ length, pricePizza
Process	radiusOfCircle = length/2 totalArea = (length*length) + (3.14159*radiusOfCircle*radiusOfCircle) pricePerSquareInch = pricePizza / totalArea
Output	DISPLAY pricePerSquareInch

6. Aslan wants to create a program that can check whether a triangle is valid or not if a user enters the angles. A triangle is valid when the sum of all angles is 180° . Write a solution for this program.

Input	READ angle1, angle2, angle3
Process	sum = angle1 + angle2 + angle3 IF sum == 180 SET validity = "Valid" IF sum != 180 SET validity = "Not Valid"
Output	DISPLAY validity

7. Write a solution for a program that accepts the year of birth from a user and categorized the person as either a child (age 0 – 11), a teenager (age 12 – 17), an adult (age 18 – 50) or a senior (age 51 and above).

Input	READ yearOfBirth
Process	age = 2024 – yearOfBirth IF age >= 0 && age <=11 SET category = "Child" IF age >=12 && age<=17 SET category = "Teenager" IF age >=18 && age<=50 SET category = "Adult" IF age >=51 SET category = "Senior"
Output	DISPLAY category

8. Write a solution for a program that will calculate the total of 5 numbers entered by the user.

Input	READ num1, num2, num3, num4, num5
Process	total = num1 + num2 + num3 + num4 + num5
Output	DISPLAY total