Python_Activity4

1. Arithmetic Expressions (Basic Calculator)

Problem Statement:
James wants to compare the total cost of two different grocery lists. He purchased some items from Store A and some from Store B. However, he mistakenly added an extra item in Store B, which he later removed. James wants to find the correct total cost by performing the following operations: adding both store totals, subtracting the mistakenly added item's price, multiplying the final total by the sales tax rate of 8%, and dividing by 1 to get the same number back (for verification). Write a program to help James calculate the final amount.

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2. Relational Expressions (Checking Age for Voting Eligibility)

Problem Statement:
Maria wants to know if she, her younger sister, and her cousin are eligible to vote. The voting law states that a person must be at least 18 years old. However, Maria is confused because her cousin's birthday is in December, and her younger sister was born in a leap year, making her age calculation slightly tricky. Write a program that takes any person's age as input and checks if they are eligible to vote.

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3. Logical Expressions (Checking if a Number is Positive and Even)

Problem Statement:
A mysterious number appeared on Jake's math homework. The number might be a secret code for unlocking a treasure chest, but it must meet **two conditions**: It should be **positive** and **even**. If the number is **negative**, it might mean the treasure is hidden underground. If it's **odd**, it might mean the treasure is locked away forever. Help Jake determine if the number he found is a valid treasure code.

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4. **String Expressions** (Combining First and Last Names)

Problem Statement:

Daniel is filling out an online form, but there's a bug in the system. The form asks for his **first name** and **last name**, but if he enters them separately, the system refuses to accept it. Instead, it seems to require both names as a single input before it processes correctly. Daniel doesn't understand why, but he needs a way to merge his first and last name into a single string so that the system will recognize it. Write a program that will take his first and last name separately and merge them into a full name.