Problem One  
The XYZ Corporation's marketing department recently conducted a survey and found that their online advertising campaign resulted in a conversion rate of 0.8%. They are now planning a new campaign and want to estimate the potential number of conversions based on their target audience size. Write a program that will estimate the number of conversions for a target audience size of 3M.

Restated

Write a program that will estimate the number of conversions for a target audience size given a specific conversion rate.

General Model

Input (audience size, conversion rate) -> conversion calculation -> output (number of conversions)

Conversion calculation -> audience size \* conversion rate

Detailed Steps

//declare storage

DECLARE audienceSize as Integer

DECLARE conversionRate as Float

DECLARE numberOfConversions

//input

PROMPT: Enter the audience size: (read)

PROMPT: Enter the conversion rate: (read)

//process

CALCUATE: numberOfConversions = audienceSize \* conversionRate

//output

PRINT the numberOfConversions (round to nearest whole number)

Problem Two  
The HR department of a manufacturing company wants to determine the cost savings achieved by  
implementing a new automated inventory system. They estimate that the new system will reduce  
inventory management costs by 15%. Develop a program that will calculate the amount of cost savings achieved by implementing the automated inventory system, aiding the HR department in evaluating the potential benefits of the new system.

Restated

Write a program that will calculate the cost savings of using an automated inventory system when given the cost savings percentage and original costs.

General Model

Input (Inventory management costs, Estimated % saved) -> Savings calculation -> output (estimated amount saved)

Formula: estimated amount saved = Inventory management costs \* (Estimated % saved / 100)

(note percentage will be entered as 15.5)

Detailed Steps

//data storage

DECLARE inventoryManagementCosts as Float

DECLARE estimatedPercentageSaved as Float

DECLARE estimateAmountSaved as Float

//inputs

PROMPT: Enter the cost of Inventory : [inventoryManagementCosts]

PROMPT: Enter the savings percentage (ie 15.5)

READ: [estimatedPercentageSaved]

//processing

CALCULATE estimateAmountSaved = inventoryManagementCosts \* (estimatedPercentageSaved / 100)

//output

PRINT estimateAmountSaved (note dollar amount)