Problem Solving Steps
Planning for solving a problem; not writing the program.

STEPS
1. State the required output items
2. State the necessary input items
3. State the formulas necessary
4. List the steps, in order

EXAMPLE
Mary has a new car and wants to estimate the cost for gasoline over the next 6 months. Because of her job, about 65% of her driving is on the highway and 35% in the city. Design a program that will allow her to estimate her cost for gasoline.

SOLUTION
1. Output: GasCost
2. Input: CityMPG, HwyMPG, GalCost, PctHwy, Miles
3. Formula: HwyMiles = Miles * PctHwy
   CityMiles = Miles - HwyMiles
   CityGal = CityMiles / CityMPG
   HwyGal = HwyMiles / HwyMPG
   ** GasCost = (CityGal + HwyGal) * GalCost
4. List the steps in order
   Input: CityMPG, HwyMPG, GalCost, PctHwy, Miles
   HwyMiles = Miles * PctHwy
   CityMiles = Miles - HwyMiles
   CityGal = CityMiles / CityMPG
   HwyGal = HwyMiles / HwyMPG
   ** GasCost = (CityGal + HwyGal) * GalCost
   Print GasCost

SPECIFIC PROBLEM
Mary’s new car consistently gets 19 miles per gallon in the city and 25 mpg on the highway. She drives approximately 500 miles per week. Because of her job, 65% of her driving is on the highway. She wants to estimate her cost for the next 6 months at the new gasoline price of $2.95 per gallon.

SOLUTION
CityMPG = 19  
HwyMPG = 25  
GalCost = 2.95  
PctHwy = .65  
Miles = 26 * 500
*** You finish the rest ***