CIS 121 Introduction to Programming. Assignment 2 Problems

Develop an IPO Chart and C++ code the following problems. Upload the IPO and code files to Blackboard.

Save your files with the convention PS2P1, PS2P2 etc. PS1P1 is Problem set 1, program 1 etc.

1. Allow the user to enter two exam scores from the keyboard. The first exam is worth 60% of the total points and the second exam is worth 40%. Calculate the total score by multiplying each exam score input by the respective weighting then add the two results together. Display the total.

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| Input | Process | Output |
| Exam1, exam2 | Have user enter results for both exam | Total score: TOTAL |
| Result1, result2 | Create equations to turn exams into their respective valuel  Exam1 = 60%  Exam2 = 40% |  |
| Total | Result = (exam \* .60 or .40) / 100 |  |
|  | Total = result1 + result2 |  |

1. Given the current stock price and quantity of stock, display the current value of the stock in your portfolio.

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| Input | Process | Output |
| Name | Allow user to enter values | Total value of NAME is TOTAL |
| Price, quantity, total | Create equation for total value |  |
|  | Total = price \* quantity |  |
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1. Enter the total for a meal. Compute a tip at 15%. Display total, tip and total with tip.

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| Input | Process | Output |
| Meal, total, tip | Have users enter their check amount | Check amount: MEAL |
|  | Create equations for tip and meal + tip | Tip: TIP |
|  | TIP = Meal \* .15 | Total: TOTAL |
|  | Total = Meal + tip |  |

1. The purchase price and current price of a stock is entered into your program. Display the percentage increase of decrease of the stock.

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| Input | Process | Output |
| Original price, new price, percent change | Allow user to enter name, original buy price, new price | Positive:  NAME has increased by PERCENT |
| Name | Create equation to get percentage |  |
|  | Percent = (OLDPRICE – NEWPRICE) / OLDPRICE x 100 | Negative:  NAME has decreased by PERCENT |
|  | If results were negative #, convert to positive |  |
|  | Create IF/ELSe for positive/negative change |  |

1. You are setting up a business and need to compute the break even point. This indicates how many items you must sell at a given price to cover your overhead. Enter fixed costs, price per unit and cost per unit into your program. Compute the break even point by dividing fixed costs by the difference of price per unit and cost per unit.

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| Input | Process | Output |
| Fix cost, price per unit, cost per unit, break even point | Allow user to enter Fix cost, price per unit, and cost per unit | Break even point: BEP |
|  | Use provided equation  Break even point = fix cost / (price per unit – cost per unit) |  |
|  | Decided to round to a full number since you can’t sell partial items  Round(break even point) |  |
|  |  |  |

Example Problems (do not have to do – solutions will be provided)

1. Get two numbers from the keyboard. Display the sum, product, difference and quotient of the two numbers.
2. Enter last name and credits taken. Tuition is $250 per credit hour. Compute total tuition. Display last name and tuition.
3. Enter first name and number of steps walked in a day. For each step you burned .25 calories. Computer the number of calories burned. Display first name and calories burned.
4. Enter the name of the political party and number of votes for two political parties. Compute the percentage of votes each party achieved. Display the party and percentages of votes.