**Variables Worksheet 5 Name -**

1. What are the values of the following expressions after the following statements have executed. If a value is a floating-point value, show a decimal point (e.g. instead of 4 write the answer 4**.**)

int apples = 10;

int bananas;

double cost = 8.0;

double priceApples = 0.5;

|  |  |  |
| --- | --- | --- |
|  | a/ | (apples + 6) / 2 = 8 |
|  | b/ | (apples + 6) / 2.0 = 8. |
|  | c/ | cost - apples \* priceApples = -1 |
|  | d/ | cost - apples \* int (priceApples) = 0 |
|  | e/ | apples % 3 \* 2 = 2 |
|  | f/ | 10.0 + apples \* priceApples = 10 |
|  | g/ | (apples + bananas) \* priceApples = error – bananas is not initiliazed |

2. Write a complete program that computes & displays the total amount of profit that that a charity organization earns in the following scenario. The charity holds a car wash where the price of each 2-door vehicle washed is $10 and vehicles with more than 2-doors is $15. It costs the charity $200 to rent the car washing location and supplies (towels, soap, etc.) cost $3 per car washed. (Assume that no supplies are wasted and that they are all used up.) The user inputs the number of 2-door vehicles and the number of vehicles with more than 2-doors that are washed.

// Mark Bailey

// carwash.cpp

#include <iostream>

#include <cstdlib>

using namespace std;

int main()

{

int twoCount;

int moreCount;

double twoDoor = 10.00;

double moreDoors = 15.00;

double const TOTAL\_COST = 200.00;

double PER\_CAR\_COST = 3.00;

double netCost;

cout << “please enter the number of 2 door cars followed by the number of more than two door cars.” << endl;

cin >> twoCount;

cin >> moreCount;

netCost = (twoCount \* twoDoor + moreCount \* moreDoor) – (TOTAL\_COST + (twoCount + moreCount) \* PER\_CAR\_COST)

cout >> “total cost was “ << netCost << endl;

system(“pause”);

return 0;

} // end of main

3. Write a complete program that prompts the user to input a positive, floating-point value (i.e. decimal number). After accepting the user-inputted value, the program must display the value rounded to the nearest whole number. Write your program on the back of the paper.

// Mark Bailey

// carwash.cpp

#include <iostream>

#include <cstdlib>

using namespace std;

int main()

{

double num;

cout << “enter a positive, floating point number” << endl;

cin >> num;

num = int (num + 0.5);

cout << num;

system(“pause”);

return 0;

} // end of main