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**Grade: /30**

**COSC 1435.001**

**Lab 4B**

Please use this document to submit your answers (Save As). Make sure you write your name in the designated space in this document.

1. a. What is the exact output of the following program? [5 points]

#include<iostream>

usingnamespace std;

int main()

{

int a, x=23;

a=x%2;

cout<<x<<endl<<a<<endl;

return 0;

}

Output: 23

1

b. What is the exact output of the following program? [5 points]

#include<iostream>

usingnamespace std;

int main()

{

cout<<"Be careful!\n";

cout<<"This might/n be a trick ";

cout<<"question.\n";

return 0;

}

Output: Be careful!

This might/n be a trick question.

1. How may the intvariables months, days, and yearsbe defined in one statement, with monthsinitialized to 2 and yearsinitialized to 3? [3 points]

Int days, months = 2, years = 3;

1. Convert the following pseudocode segment to C++ code. Be sure to define the appropriatevariables. [7 points]

speed🡨 20

time🡨 10

distance🡨 speed \* time

Print “The distance is: ”, distance

Int speed = 20;

Int time = 10;

Int distance;

Distance = speed \* time;

Cout << “The distance is “ << distance << endl;

!!!(Without all of the capital letters)!!!

1. [10 points] Write an algorithm in pseudocode to be used by Joe's Pizza Palace to calculate the number of slices a pizza of any size can be divided into. The algorithm should follow the following steps:

A) Ask the user for the diameter of the pizza in inches.

B) Calculate the number of slices that may be taken from a pizza of that size.

C) Display a message telling the approximate number of slices.

To calculate the number of slices that may be taken from the pizza, you must know the following facts:

* Each slice should have an area of 14.125 inches.
* The area of the pizza is calculated with this formula: Area = pi \* r2, where pi is 3.14159 and r is the variable pizza radius.

Variables- diameter, r, slice, pi, area, remaining

r = diameter / 2

Slice = 14.125

Pi = 3.14159

Area = pi \* r^2

Print “Enter the Diameter of your pizza please. (in inches)”

Get diameter

Calculate R

Area / slice = remaining

Print “You have about “ << remaining << “slices of pizza left” << endl;