Text

Description automatically generated

//Cathal Lawlor - 21325456 - 16/11/2021

#include <stdio.h>

#include <string.h>

#include <ctype.h>

//setting the prototypes

float volume(float l, float w, float h);

void mass(float volume);

float barrels(float volume);

void display(float volume, float barrels);

//main function that will run the other functions. Contains varibles for calulating the volume.

void main() {

int id = 21325456;

float l = 4;

float w = 5;

float h = 6;

volume(l, w, h);

float totalvolume = volume(l, w, h);

barrels(totalvolume);

float totalbarrels = barrels(totalvolume);

display(totalvolume, totalbarrels);

mass(totalvolume);

}

//function the calculate the volume.

float volume(float l, float w, float h) {

float v = l \* w \* h;

return v;

}

//function to calculate and print the mass.

void mass(float v) {

float mass = v \* 1000;

printf("Mass of water: %0.2f kg \n", mass);

}

//function to calculate the barrels filled.

float barrels(float v) {

float b = 0.48 / v;

return b;

}

//function to print the ID, Volume and barrels.

void display(float v, float b) {

printf("ID number: 21415252 \n");

printf("Volume of the water: %0.2f m^3 \n", v);

printf("Barrels: %0.3f \n", b);

}