

```
Script started on 2023-09-25 12:41:11-05:00 [TERM="xterm" TTY="/dev/pts/6" COLUMNS=
a_vitale3@ares:~$ pwd
/home/students/a_vitale3
a_vitale3@ares:~$ cat ouncescon.info
Name: Andrew Vitale
```

Class: CSC121

Activity: Ounces Conversion

Level: 4

Description:

Program that takes in oz. and turns it into lbs and oz. and lbs in decimal form.a\_

ouncescon.cpp:

```
1  #include <iostream>
2  #include <limits>
3
4  using namespace std;
5
6  int main(void)
7  {
8      short ounces,
9          pounds1,
10         ouncesleft;
11     double pounds2;
12     constexpr streamsize INF_FLAG{numeric_limits<streamsize>::max()};
13     const short ounces_in_pound = 16;
14     char user = 'y';
15
16     while(user == 'y')
17     {
18         cout << "Welcome to the ounces conversion program.\n";
19         cout << "please enter the ammount of ounces you want to convert: ";
20
21         cin >> ounces;
22         cin.ignore(INF_FLAG, '\n');
23
24         cout << "you have entered " << ounces << " oz. calculating...";
25
26         pounds1 = ounces / ounces_in_pound;
27         ouncesleft = ounces % ounces_in_pound;
28         pounds2 = static_cast<double>(ounces) / ounces_in_pound;
```

```
29
30         cout << ounces << " oz. is " << pounds1 << " lbs. and " << ouncesleft << " oz.\n";
31         cout << "In decimal form " << ounces << " oz. is " << pounds2 << " lbs.\n";
32
33         cout << "Would you like to Calculate again?\n";
34         cin >> user;
35         cin.ignore(20, '\n');
36     }
37     return(0);
38 }
a_vitale3@ares:~$ CPP ouncescon
ouncescon.cpp***
```

```
a_vitale3@ares:~$ ./ouncescon.out
Welcome to the ounces conversion program.
please enter the ammount of ounces you want to convert: 75
you have entered 75 oz. calculating...
75 oz. is 4 lbs. and 11 oz.
In decimal form 75 oz. is 4.6875 lbs.
Would you like to Calculate again?
y
Welcome to the ounces conversion program.
please enter the ammount of ounces you want to convert: 82
you have entered 82 oz. calculating...
82 oz. is 5 lbs. and 2 oz.
In decimal form 82 oz. is 5.125 lbs.
Would you like to Calculate again?
yes
Welcome to the ounces conversion program.
please enter the ammount of ounces you want to convert: 13
you have entered 13 oz. calculating...
13 oz. is 0 lbs. and 13 oz.
In decimal form 13 oz. is 0.8125 lbs.
Would you like to Calculate again?
no
a_vitale3@ares:~$ cat ouncescon.tpq
Q1:
```

What value is the constant in this program?

What [data] type of value is it? What does it stand for?

What did you name it?

A1:

the value of the constant is 16.

the data type is short. it stands for the ammount of ounces in a pound.

I named it ounces\_in\_pound

<p>Q2:</p> <p>What variables do you have in this program? What are their data types?</p> <p>A2:</p> <p>I have 5 variables named ounces, pounds1, ouncesleft, pounds2, and ounces_in_pound their data types are short, double, and const.</p> <p>Q3:</p> <p>How can you get both the decimal total pounds and the wholepounds with remaining ounces from the same input value?</p> <p>A3:</p> <p>to get decimal and wholepounds with remaining ounces we use divide by 16 to get whole and use modulo by 16 to get remaining ounces.</p> <p>Q4:</p> <p>What happens if the user types a fractional number of ounces to begin with? (I.E. 4.5)</p> <p>A4:</p> <p>What happens if the user accidentally types a symbol or letter instead of their ounces amount?</p> <p>A5:</p> <p>Q6:</p> <p>If the user's input is potentially followed by garbage, how can we throw it away? More specifically, how do we tell cin that we don't want or need the buffer contents...that it can simply be ignored?</p> <p>A6:</p> <p>I can use the cin.ignore function to ignore everything put after the ounces.</p> <p>Q7:</p> <p>Does this facility require anything other than our usual #include of iostream at the top of our program?</p> <p>A7:</p> <p>in order for this to work i need to do #include &lt;limits&gt;</p> <p>Q8:</p> <p>Why don't we need/use the string data type in this situation?</p> <p>Q5:</p>	
--	--

A8:

we don;t need to store the data that is put after the number value and soring it c  
lead to poor optimization if this program was large.

```
a_vitale3@ares:~$ exit  
exit
```

Script done on 2023-09-25 12:42:44-05:00 [COMMAND\_EXIT\_CODE="0"]