**PF Assignment 1**

**Q 1**. Assuming there are 7.481 gallons in a cubic foot, write a program that asks the

user to enter several gallons, and then displays the equivalent in cubic feet.

**Q 2.** Write a program that generates the following table:

1990 135

1991 7290

1992 11300

1993 16200

Use a single cout statement for all outputs.

**Q 3**. Write a program in C++, to display the calculate and display the reverse of a

number on output

Sample input: 123

Sample output: 321

**Q 4**. Write a program that displays your favorite poem. Use an appropriate escape

Sequence or the line breaks. If you don’t have a favorite poem, you can borrow

this one by Ogden Nash:

Candy is dandy,

But liquor is quicker.

**Q 5**. On a certain day the British pound was equivalent to $1.487 U.S., the French

franc was $0.172, the German deutschemark was $0.584, and the Japanese yen

was $0.00955.

Write a program that allows the user to enter an amount in dollars, and then

displays this value converted to these four other monetary units.

**Q 6.** You can convert temperature from degrees Celsius to degrees Fahrenheit by

multiplying by 9/5 and adding 32. Write a program that allows the user to enter a

floating-point number representing degrees Celsius, and then displays the

corresponding degrees Fahrenheit

**Q 7.**

Calculate following formulas where value of a, b and c will be given from the users.

* a2 – b2 = (a – b)(a + b)
* (a + b)2 = a2 + 2ab + b2
* (a – b)2 = a2 – 2ab + b2
* (a + b + c)2 = a2 + b2 + c2 + 2ab + 2bc + 2ca.
* (a + b)3 = a3 + 3a2b + 3ab2 + b3

**Q8**

In the heyday of the British empire, Great Britain used a monetary system based on pounds, shillings, and pence. There were 20 shillings to a pound, and 12 pence to a shilling. The notation for this old system used the pound sign, £, and two decimal points, so that, for example, £5.2.8 meant 5 pounds, 2 shillings, and 8 pence. (Pence is the plural of penny.) The new monetary system, introduced in the 1950s, consists of only pounds and pence, with 100 pence to a pound (like U.S. dollars and cents). We’ll call this new system decimal pounds. Thus £5.2.8 in the old notation is £5.13 in decimal pounds (actually £5.1333333). Write a program to convert the old pounds-shillings-pence format to decimal pounds. An example of the user’s interaction with the program would be

Enter pounds: 7

Enter shillings: 17

Enter pence: 9

Decimal pounds = £7.89

**Due Date=21/10/2023**

**Assignment should be submitted in printed form from which viva will be taken**