

## CS260 - Homework 1 Solution

1.16 Write a single C++ statement or line that accomplishes each of the following:

a) Print the message **"Enter two numbers"**.

**ANS: cout << "Enter two numbers";**

b) Assign the product of variables **b** and **c** to variable **a**.

**ANS: a = b \* c;**

c) State that a program performs a sample payroll calculation (i.e., use text that helps to document a program).

**ANS: // Sample Payroll Calculation Program**

d) Input three integer values from the keyboard and into integer variables **a**, **b**, and **c**.

**ANS: cin >> a >> b >> c;**

1.19 What, if anything, prints when each of the following C++ statements is performed? If nothing prints, then answer "nothing." Assume **x = 2** and **y = 3**.

a) **cout << x;**

**ANS: 2**

b) **cout << x + x;**

**ANS: 4**

c) **cout << "x=";**

**ANS: x=**

d) **cout << "x = " << x;**

**ANS: x = 2**

e) **cout << x + y << " = " << y + x;**

**ANS: 5 = 5**

f) **z = x + y;**

**ANS: nothing.**

g) **cin >> x >> y;**

**ANS: 23**

h) **// cout << "x + y = " << x + y;**

**ANS: nothing.**

i) **cout << "\n";**

**ANS: A newline is output which positions the cursor at the beginning of the next line on the screen.**

1.20 Which of the following C++ statements contain variables whose values are destroyed?

a) **cin >> b >> c >> d >> e >> f;**

b) **p = i + j + k + 7;**

c) **cout << "variables whose values are destroyed";**

d) **cout << "a = 5";**

**ANS: Parts (a) and (b).**

1.21 Given the algebraic equation  $y = ax^3 + 7$ , which of the following, if any, are correct C++ statements for this equation?

a) **y = a \* x \* x \* x + 7;**

b) **y = a \* x \* x \* (x + 7);**

c) **y = (a \* x) \* x \* (x + 7);**

d) **y = (a \* x) \* x \* x + 7;**

e) **y = a \* (x \* x \* x) + 7;**

f) **y = a \* x \* (x \* x + 7);**

**ANS: Parts (a), (d), and (e).**

## CS260 - Homework 1 Solution

1.25 Write a program that asks the user to enter two integers, obtains the numbers from the user, then prints the larger number followed by the words "is larger." If the numbers are equal, print the message "These numbers are equal."  
ANS:

```
1 // Exercise 1.25 Solution
2 #include <iostream.h>
3
4 int main()
5 {
6     int num1, num2;    // declaration
7
8     cout << "Enter two integers: "; // prompt
9     cin >> num1 >> num2;          // input to numbers
10
11     if ( num1 == num2 )
12         cout << "These numbers are equal." << endl;
13
14     if ( num1 > num2 )
15         cout << num1 << " is larger." << endl;
16
17     if ( num2 > num1 )
18         cout << num2 << " is larger." << endl;
19
20     return 0;
21 }
```

```
Enter two integers: 22 8
22 is larger.
```