1. Write a C++ program using output statements to print sentences below. This program does not read anything from a keyboard.

```
Hello, world.
Kwangwoon University.
Computer Engineering Department
```

2. Write a program that reads 10 integers and prints the sum of the ten numbers. You can see a sample input and corresponding result below.

```
Enter ten numbers: 6 28 3 81 3 6 0 12 9 10
Sum: 158
```

3. Write a program that prints several strings and numbers, keeping a format below.

```
<table>
<thead>
<tr>
<th>Air bus</th>
<th>cost ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seoul</td>
<td>30.2</td>
</tr>
<tr>
<td>New York</td>
<td>144.7</td>
</tr>
<tr>
<td>Shanghai</td>
<td>50.6</td>
</tr>
<tr>
<td>Tokyo</td>
<td>63.2</td>
</tr>
<tr>
<td>Madrid</td>
<td>173.1</td>
</tr>
</tbody>
</table>
```

4. Write a program that shows the ASCII code value of a character.

```
Enter a character: b
ASCII code value ‘b’ : 98
```

5. Write a program that prints following strings.

```
“HOW ARE YOU?”
SURPRISE!! Discount %50
What is the ‘program’?
```

6. Write a program that converts kilograms into
   a. ounce (35.273 oz/kg)  b. grain (15432.0 gr/kg)  c. pound (2.20459 lbs/kg)
7. Write a program that performs four arithmetic operations. (+, -, *, /, and %) This program reads two integers from a keyboard and computes the operations with the numbers. You can see an example below. Note that the second number should not be zero.

Operand 1 : 7  
Operand 2 : 4  
7 + 4 = 11  
7 – 4 = 3  
7 * 4 = 28  
7 / 4 = 1  
7 % 4 = 3

8. Write a program that calculates the area of the rectangle. The program inputs two coordinates of left-top and right-bottom.

(x1, y1)  
x1 : 3  
y1 : 4  
x2 : 10  
y2 : 8  
Rectangle area : 28  
(x2, y2)

9. Write a program that converts temperature in Celsius degree into Fahrenheit.  
°F = (°C * 1.8) + 32  

Celsius degree : 32  
Fahrenheit degree : 89.6

10. Write a program that computes a sum of integer sequence that is from 1 to x. The parameter x will be obtained from a keyboard.

11. Write a dice program that generates random numbers from 1 to 6.
12. Write a program that calculates a total cost with unit cost and quantity of three items (Notes, pens, and document folders). This program requires unit costs and quantities. You can see an output example of the program.

<table>
<thead>
<tr>
<th>Item</th>
<th>Unit cost</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Note</td>
<td>2000</td>
<td>7</td>
</tr>
<tr>
<td>Pen</td>
<td>300</td>
<td>5</td>
</tr>
<tr>
<td>Document Folder</td>
<td>1000</td>
<td>3</td>
</tr>
</tbody>
</table>

Total cost: \(14000 + 1500 + 3000 = 18500\)

13. Write a program that perimeter, area, and volume of a sphere. You can use following parameter and formulas.

\[
\pi = 3.141592653589793238462643383279
\]
\[
\text{Girth} = 2\pi r
\]
\[
\text{Surface Area} = 4\pi r^2
\]
\[
\text{Volume} = \frac{4}{3}\pi r^3
\]

Radius: 3
Girth: 18.8496
Surface Area: 113.097
Volume: 113.097

14. Write a program that computes the return value of a polynomial function \((z = 3x^2 + 5y + 1)\).

Input the value of the \(x\): 2
Input the value of the \(y\): 7
Result: 48

15. Write a program to compute a power, \(x^y\). Note that you can input two numbers, \(x\) and \(y\) from a keyboard.