**CST 180 – Looping Activity Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

Show the output produced by the following segments of code.

**1. i = 30;**

 **j = 10;**

 **if (i > 10 + j)**

 **while (i > j)**

 **{**

 **i = i - 10;**

 **cout << i << endl;**

 **}**

 **else**

 **while (j >= i)**

 **{**

 **j = j - 10;**

 **cout << j << endl;**

 **}**

**2. i = 10;**

 **j = 10;**

 **if (i > 10 + j)**

 **while (i > j)**

 **{**

 **i = i - 10;**

 **cout << i << endl;**

 **}**

 **else**

 **while (j >= i)**

 **{**

 **j = j - 10;**

 **cout << j << endl;**

 **}**

**3. for (i = 1 ; i <= 10 ; i++)**

 **{**

 **if (i == 2)**

 **cout << "hello" << endl;**

 **else if (i == 3)**

 **cout << "goodbye" << endl;**

 **else if (i == 4)**

 **cout << "why" << endl;**

 **if (i < 5)**

 **cout << "help" << endl;**

 **if (i > 6)**

 **cout << "blue" << endl;**

 **}**

**4. Which loop(s) are pre-test loop(s)? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

 **Which loop(s) are post-test loop(s)? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**5. What does the following program segment do? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

 **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

 **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

 **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

 **punctuation = letters = digits = 0;**

 **cout << "enter any character or '/' to quit: ";**

 **cin >> character;**

 **while (character != '/')**

 **{**

 **if (character == ',' || character == '.')**

 **punctuation++;**

 **else if (character >= 'a' && character <= 'z' ||**

 **character >= 'A' && character <= 'Z')**

 **letters++;**

 **else if (character >= '0' && character <= '9')**

 **digits++;**

 **cout << "enter any character or '/' to quit: ";**

 **cin >> character;**

 **}**

 **cout << punctuation << ' ' << letters << ' ' << digits << endl;**

Show the output produced by the following segments of code.

**6. w = 0; 7. w = 0;**

 **for (h = -2; h <= 5; ++h) for (h = 10; h > 0; --h)**

 **w = w + h; cout << w;**

 **cout << w;**