Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ AP Computer Science A (For Loop Practice)

**For whom? For loop.**

1. What is the output? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 int sum = 0;

 for (int k=0; k<5; k++)

{

 sum += k;

}

System.out.println(sum);

2. What is the final value of p? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

double p = 0;

for (int m=10; m>6; m--)

{

 if (m==7)

 {

 p = p+m;

 }

 else

 {

 p++;

 }

}

3. Which of the following will print the set of odd integers \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 starting at 1 and ending at 9?

 a) for (int j=0;j<=9; j++)

 System.out.println(j);

 b) for (int j=1;j<10; j=j+2)

 System.out.println(j);

 c) for (int j=1;j<=9; j+=1)

 System.out.println(j);

 d) for (int j=1;j<=9; j+=2)

 System.out.println(j);

 e) Both b and d

4. What output will be produced by the code segment? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 double x = 0;

 for (int b=0; b<101; b++)

 {

 x = x+1;

 b--;

 }

 System.out.println(x);

5. What is the output? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 int p, q = 5;

 for (p=0; p<5; p++); //notice the semicolon

 q = q+1;

 System.out.print (p + “ ” + q);

6. What is the output? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 int s = 1;

 for (int j=3; j>=0; j--)

 {

 s = s + j;

 }

 System.out.println (s);

7. What is the output? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 double a = 1.0;

 for (int j=0; j<9; j++)

 {

 a \*= 3;

 }

 System.out.println (j);

8. What is the output? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 int b = 0;

 for (int iSpy=0; iSpy<10; iSpy++)

 {

 b = 19 + iSpy;

 }

 System.out.println (b);

9. How many times does the following loop iterate? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 for (p=10; p<=90; p++)

 {

 …

 }

10. What is the value of *j* for each iteration of the following loop? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 int i,j;

 for (i=10; i<=100; i=i+10)

 j = i/2;

11. What is value of *r* after the following statements \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 have executed?

 int r, j;

 for (j=1;j<10;j\*=2)

 r = 2\*j;

12. Write a for loop that will print the numbers 3, 6, 9, 12.

13. Write a for loop that will sum the integers from 1 to and including 100.

14. Write a for loop that will find the largest number in a user input set of 50 numbers.

15. Write a for loop that will sum the numbers from the integer variable num1 to and including the integer variable num2. You can assume that both variables are already initialized and that num2>num1.

16. Write a code segment that uses a loop to allow the user to input 10 integers and that displays the average of those numbers.

17. Write a for loop that will sum the odd integers from 1 to and including 37.

18. Write a for loop that will print the even integers from 2-40 inclusive. Print numbers in a vertical column.

19. What is the name of the part in the parenthesis of a for-loop that terminates the loop?

20. When is it appropriate to use for loops?