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**Intro to For-Loops**

[ /31 marks – T]

1. Type the program into Dr. Java, compile and run.

public class ForLoop1{

public static void main (String[] args){

for (int count=0; count < 10; count++){

System.out.println(count);

}//end for

}

}

1. What is the output?   
   the output is a count from 0 to 9  
   \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. How many times does this program loop?   
   10 times if you include the 0  
   \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. Type the program into Dr. Java, compile and run.

public class ForLoop2{

public static void main (String[] args){

for (int t=0; t <= 10; t++){

System.out.println(t);

}//end for

}

}

1. What is the output?   
   the output is a count from 0 to 10  
   \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. How many times does this program loop?  
    the program prints 11 times if you include the 0  
   \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. Fill in the blank to output the numbers 5 to 20  
   public class ForLoop3{

public static void main (String[] args){

for (int cNum = 5; cNum <=20 ; cNum++){

System.out.println(cNum);

}//end for

}

}

1. Fill in the blank to output the numbers between 5 and 100 by multiples of 5. (e.g. 5 10 15 20 …etc)  
   public class ForLoop4{

public static void main (String[] args){

for (int cNum = 5 ; cNum <= 100 ; cNum += 5){

System.out.println(cNum);

}//end for

}

}

1. Fill in the blank to output the numbers 20 to 5  
   public class ForLoop5{

public static void main (String[] args){

for (int i = 20 ; i >= 5 ; i-- ){

System.out.println(number);

}//end for

}

}

1. Identify the following parts of the program:  
   for (int count=0; count <= 100; count += 10){

System.out.println(count);

}//end for

* 1. What piece of Java code initializes/ gives the starting number for the for-loop?  
     int count = 0

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

* 1. What piece of Java code tells the for-loop when to stop?  
     count <= 100

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

* 1. What piece of Java code tells the for-loop how much to increment or decrement by?  
     count += 10

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

* 1. Fill in the Flowchart for the code in question 4

Start

End



1. How many times will the following pieces of code loop?:

for (int x=1; x < 10; x++){

System.out.println(x);

}//end for

It will loop 9 times \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

for (int y=1; y < 10; y = y +10){

System.out.println(y);

}//end for

It will loop once \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

for (int w=0; w <= 10; w++){

System.out.println(w);

}//end for

Number of iterations

it will loop 10 times\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

for (int a=1; a < 1; a++){

System.out.println(a);

}//end for

Number of iterations

It will print zero times\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

for (int b=10; b > -3; b--){

System.out.println(b);

}//end for

Number of iterations

It will iterate 12 times\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

for (int b=1; b < 100; b=b\*2){

System.out.println(b);

}//end for

Number of iterations

It will run 7 times\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. What is an infinite loop?\_when the program never stops \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. When does an infinite loop occur?  
   \_\_\_\_ the program never stops because it is unable to fulfil the expression \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. Type the program into Dr. Java, compile and run.

public class ForLoop6{

public static void main (String[] args){

for (int count=0; count <= 10; count++){

if (count == 5) {

break;

}  
System.out.println(count);

}//end for

}

}

1. What is the output?   
   counting from 0 to 4  
   \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. What does the break command do?   
   it stops the program   
   \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. Type the program into Dr. Java, compile and run.

public class ForLoop7{

public static void main (String[] args){

for (int num =0; num <= 10; num++){

if (num == 5 || num == 8){

continue;

}

System.out.println(num);

}

}//end for

}

1. What is the output?   
   count from 0 to 10 skipping the 5 and 8  
   \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. What does the continue command do?   
   starts the program from the beginning again  
   \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_