1. Consider the code with its line numbers (#). Explain **briefly** what happens with the `for` loop when the coninue statement on 4# is encountered. **And state which statement is executed next.**

```
1#    int num = 0, i=0;
2#    while(i++<5)        int i 3
3#    {   if (i==2)        num i
4#            continue;
5#        num ++;
6#    )
7#    num += i;
```

if i==2 the continue skip the remander and do next iteravtion

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And state which statement is executed next first i=2 and do Post increment then So i is change to 3 and don't equal 2 So will executed expression

2. Fill line 3# to make the `while` loop execute...:

3 times		1 time only	
1# `int x = 0;`		1# `int x = 0;`	
2# `while (x < 6){`		2# `while (x < 6){`	
3# `x = ` _X + 2_ `;`		3# `x = ` _X + 6_ `;`	
4# `}`		4# `}`	

3. Is this loop an infinite loop? Explain precisely.

```
1#    int num = 9;
2#    do {
3#         if (num < 9) break;
4#         num ++;
5#    }while(true);        flag
```

yes because the boolean flag don't change to false to stoped the loop also the num always not < 9

4. After this loop,

```
1#    Scanner input = new Scanner(System.in);
2#    int num;
3#    while( num >= 0 ) {
4#        num = input.nextInt();
5#    }
6#
```

when we reach line 6# the value of num can be: (check all that apply)

☑ negative

☐ zero

☐ positive

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Question 1: Multiple choice (Note: ~ represent space)

1- Reading a double number using nextInt() is example of اذا كان الباحث من اول			
a- Compilation error	b- Run time error	c- Logical error	d- Design error

2- A program that read the price of two product and display the total and average has the following input			
a- number of products	b- total price	c- total price and average	d- price of two products

3- Which of the following values can a variable of type character NOT store?			
a- Digit	b- String	c- Space	d- Special character

4- Which of the following identifiers is valid?			
a- email-Address ✗	b- javaQuiz#1 ✗	c- double_Price	d- 1stName ✗

5- What will be the value of z after executing the following statements?

int x=0, y=3;

double z = y * 5 - 3 / x + 4 ;

$13*5 - 3/0 + 4$
$15 - 3/0 + 4$
$15 - 0 + 4$

a- 3.0	b- 4.0	c- Compilation error	d- Run time error

6-What is the output of the following java statement:

System.out.println ((double) ('a' + 3)); // Unicode of 'a' = 97   100

a- 99.0	b- 100	c- 100.0	d- Compilation error

7- What is the output of the following java statement:

int x = 1, y = 2 , z = 3 ;

System.out.println(x++ < y && y >= --z);

$1 < 2 \quad 88 \quad 2 >= 2$
$T \quad 88 \quad T$

a- true	b- false	c- Compilation error	d- Run time error

8- What is the output of the following java statement (Assume read is a Scanner and user input is: 9.0e):

double x= read.nextDouble();

System.out.println(x);

a- 9.0	b- 9.0e	c- Compilation error	d- Run time error

9- What is the output of the following java statement:

System.out.printf ("%1.1f", 2.466);

a- 2.5	b- 2.466	c- ~2.5	d- ~2.466

10- String str ="Exam1";

System.out.println (str.replace('x', '*'));   now the value of str is

a- Exam1	b- E*am1	c- Syntax error	d- Run time error

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Question #1: (5S) **Trace each of the following code segments** [6pts]

Segment #1	count	i	output (if any)
	7 ✓	2 ✓	
`int count=7;` 1.5	6 ✓	1	
`int i;` Fake		0	
`for (i = 2; i<0; i--);`			
`count--;`			

Segment #2	count	num	output (if any)
`int num = 5, count = 0;` 1.5	0 ✓	5 ✓	hi 5 ✓
`for(num=5; num>0; num-=2)`	1 ✓	4 ✓	
`{ switch(num)`	1	2 ✓	
`{ case 3: num++; break;`	1	0 ✓	hi 0 ✓
`case 2: num = 0;` -1-2	2 ✓	-1 ✓	
`default:`		-3 ✓	num = n -3 ✓
`System.out.println("hi"+num);`			
`num--;` 4			
`}`			
`count ++;` 1			
`} while (num>0);`			
`System.out.println("num = "+num);`			

Segment #3	n	i	output (if any)
	0 ✓	0 ✓	رصل
`int n = 0;`	2 ✓	0	Mello ~0 ✓
`int i = 0;` 2.5	4 ✓	1 ✓	Hello ~1 ✓
`while (n<=6)` 0<=6 ✓	6 ✓	2	
`{ for (i =0; i<2; i++)` 0 1	6	0 ✓	رصل
`System.out.println("Hello "+i);`	8 ✓	0	Hello ~0 ✓
`n+=2;` 0+9=7	10 ✓	1 ✓	Hall o~1 ✓
`}`	12 ✓	2	
`n+=2;`	12	0 X	Hi ~12 ✓
`System.out.println("Hi " + n);`			

extra -.25
i++ 0 -.25

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