Which looping statement checks the test condition at the end of the loop?
   a) for
   b) while
   c) do-while
   d) no looping statement do that

Which looping statement checks the test condition at the loop start?
   a) for
   b) while
   c) do-while
   d) a and b

Which looping statement is best used when the number of iterations is known?
   a) for
   b) while
   c) do-while
   d) all looping statement require that the iterations be known

What is wrong with this code snippet?
```java
for(int k = 2, k <= 12, k++)
    System.out.println("K="+k);
```
   a) the increment should always be ++k
   b) the variable must always be the letter i when using a for loop
   c) there should be a semicolon at the end of the statement
   d) the commas should be semicolons

What is wrong with this code snippet?
```java
int i = 25;
while((i < 10) && (i > 24)) {
    System.out.println(i);
    ++i;
}
```
   a) the logical operator && cannot be used in a condition
   b) the increment should be i++ instead of ++i
   c) the test condition is always false regardless of i value
   d) the test condition is always true regardless of i value

What value is stored in num at the end of this looping?
```java
int num;
for(num = 1; num <= 5; num++) {
}
```
   a) 1
   b) 4
   c) 5
   d) 6
What value is stored in x at the end of this looping?
```
int x = 1;
while(x < 5) {
    x++;
}
```

a) 1  
b) 4  
c) 5  
d) 6

What value is stored in i at the end of this looping?
```
int i = 5;
do {
    i--;
} while(i >= 0);
```

a) 1  
b) 0  
c) 5  
d) -1

What is the output of the following code snippet?
```
for(int i = 0; i < 12; i += 2) {
    System.out.print(i + " ");
}
```

a) 2 4 6 8 10  
b) 2 4 6 8 10 12  
c) 0 2 4 6 8 10  
d) 0 2 4 6 8 10 12

What is the output of the following code snippet?
```
int i = 10;
do {
    System.out.print(i + " ");
    i--;
} while(i > 5);
```

a) 9 8 7 6 5  
b) 9 8 7 6  
c) 10 9 8 7 6 5  
d) 10 9 8 7 6

Trace the following program and write its output
```
int i = 0;
do {
    if(i % 2 == 0) {
        System.out.println("here: " + i);
        i += 2;
    } else {
        System.out.println("there: " + i);
        i++;
    }
} while(i <= 5);
```

here: 0
Trace the following program and write its output

```java
int i = 0;
do {
    if(i % 2 == 0 && i < 4) {
        System.out.println("here: " + i);
        i += 2;
    } else {
        System.out.println("there: " + i);
        i++;
    }
} while(i <= 5);
```

Here: 0
Here: 2
There: 4
There: 5

What is the output of the following code snippet?

```java
for(int i = 0; i < 5; i++) {
    System.out.print("[ ");
    for(int j = i; j < 4; j++) {
        System.out.print(j + " ");
    }
    System.out.println("]");
}
```

```
[ 0 1 2 3 ]
[ 1 2 3 ]
[ 2 3 ]
[ 3 ]
[ ]
```

What is the output of the following code snippet?

```java
int i = 5;
do {
    for(int j = i; i > 0; i--) {
        System.out.print(j + " ");
    }
} while(i > 0);
```

5 5 5 5 5

Transform the following for loop code snippet:

```java
for(int i = 0; i < 10; i++) {
    System.out.println("The value of i = " + i);
}
```

Into:

a) while loop
b) do-while loop
a)
int i = 0;
while(i < 10) {
    System.out.println("The value of i = " + i);
    i++;
}

b)
int i = 0;
do {
    System.out.println("The value of i = " + i);
    i++;
} while(i < 10);

Transform the following do-while loop code snippet:
int i = 0;
do {
    if(i % 2 == 0 && i < 4) {
        System.out.println("here: " + i);
        i += 2;
    }
    else {
        System.out.println("there: " + i);
        i++;
    }
} while(i <= 5);
Into:
a)  for loop
    b)  while loop

a)
for(int i = 0; i <= 5; ) {
    if(i % 2 == 0 && i < 4) {
        System.out.println("here: " + i);
        i += 2;
    }
    else {
        System.out.println("there: " + i);
        i++;
    }
}

b)
int i = 0;
while(i <= 5) {
    if(i % 2 == 0 && i < 4) {
        System.out.println("here: " + i);
        i += 2;
    }
    else {
        System.out.println("there: " + i);
        i++;
    }
}