FACE

Java Looping – MCQ's

FACE

What makes a loop a counting loop?

A. A loop control variable is tested in the *while* statement, and is changed each time the loop body executes,

B. A counter is counted upwards by one until it hits a particular limit.

C. A counter is counted downwards by one until it hits zero.

D. No loop control variables are used.

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B. A counter is counted upwards by one until it hits a particular limit.

C. A counter is counted downwards by one until it hits zero.

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Another word for "looping" is:
   A.   recapitulation
   B.   tintinabulation
   C.   iteration
   D.   reiteration

Another word for "looping" is:

   A.   recapitulation

   B.   tintinabulation

   C.   **iteration**

   D.   reiteration

FACE

A colony of rabbits doubles its population every 28 days. The population starts out at 2 and increases until it reaches 100,000. Say that a section of code simulated this process. Which of the following *while* statements is most likely to be used?

A.   while (population = 10000)
B.   while (population < 100000)
C.   while (population != 100000)
D.   while (population < 1.0E+6)

FACE

A colony of rabbits doubles its population every 28 days. The population starts out at 2 and increases until it reaches 100,000. Say that a section of code simulated this process. Which of the following *while* statements is most likely to be used?

A. while (population = 10000)
B. **while (population < 100000)**
C. while (population != 100000)
D. while (population < 1.0E+6)

FACE

Here is part of a graphics program that simulates a color fading in the sun. The amount of red starts at the maximum of 1.0 and is faded by decreasing it by 1% each time the loop executes, until it is close to zero.

```
float redLevel = 1.0;
while ( _____ )
{
        redLevel = redLevel*0.99 ;
        // the new redLevel is used here in some graphics methods
}
```

Pick a condition for the *while* statement.

A. redLevel == 0.0

B. redLevel > 0.001

C. Math.abs(redLevel) < 0.0

D. redLevel*redLevel < 1.0

Pick a condition for the *while* statement.

A. redLevel == 0.0

B. redLevel > 0.001

C. Math.abs(redLevel) < 0.0

D. redLevel*redLevel < 1.0

FACE

What is an infinite loop?

A. A loop that functions infinitely well
B. A loop that runs forever
C. A loop that never starts
D. A loop that will never function

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What is an infinite loop?

A. A loop that functions infinitely well
B. **A loop that runs forever**
C. A loop that never starts
D. A loop that will never function

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What is the value of k after the following code fragment?

```
int k = 0;
int n = 12
while (k < n)
{
k = k + 1;
}
```

A) 0   B) 11   C) 12   D) 13

What is the value of k after the following code fragment?

```
int k = 0;
int n = 12
while (k < n)
{
k = k + 1;
}
```

A) 0   **B)** 11   **C)** **12**   **D)** 13

FACE

```
1  // Predict the output
2  class Test {
3  public static void main(String[] args)
4      {
5          int j = 0;
6          do
7              for (int i = 0; i++ < 1 ; )
8                  System.out.println(i);
9          while (j++ < 2);
10     }
11 }
```

A. 111   B. 222   C. 333   D. error

```
1   // Predict the output
2   class Test {
3   public static void main(String[] args)
4       {
5           int j = 0;
6           do
7               for (int i = 0; i++ < 1 ; )
8                   System.out.println(i);
9           while (j++ < 2);
10      }
11  }
```

A. 111   B. 222   C. 333   D. error

```
1   // Predict the output
2   class Test {
3       static String s = "";
4   public static void main(String[] args)
5       {
6       P:
7           for (int i = 2; i < 7; i++) {
8               if (i == 3)
9                   continue;
10              if (i == 5)
11                  break P;
12              s = s + i;
13          }
14          System.out.println(s);
15      }
16  }
```

FACE

Options Are:

A. 32   B. 23
C. 24   D. 42

Options Are:

A. 32   B. 23

C. 24   D. 42

What three parts of a counting loop must be coordinated in order for the loop to work properly?

A. initializing the counter, testing the counter, changing the counter

B. initializing the condition, changing the condition, terminating the loop

C. the *while*, the *assignment*, and the *loop body*

D. the *while* statement, the *if* statement, and sequential execution.

What three parts of a counting loop must be coordinated in order for the loop to work properly?

A. **initializing the counter, testing the counter, changing the counter**

B. initializing the condition, changing the condition, terminating the loop

C. the *while*, the *assignment*, and the *loop body*

D. the *while* statement, the *if* statement, and sequential execution.

The ……………………… loop is especially useful when you process a menu selection.

A) while
B) do-while
C) for
D) switch

The .... loop is especially useful when you process a menu selection.

A) while
B) do-while
C) for
D) switch

By using ……………………, you can force immediate termination of loop, bypassing the conditional expression and any remaining code in the body of the loop.

A) switch
B) break
C) continue
D) default

By using …………………….., you can force immediate termination of loop, bypassing the conditional expression and any remaining code in the body of the loop.

A) switch
B) break
C) continue
D) default

Is the do statement a necessary feature in Java?

a. No--everything it does could be done with a while.

b. No--but it would be extremely difficult without it.

c. Yes--some loops can only be implemented with a do.

d. Yes--without it one of the major control structures would be lost.

Is the do statement a necessary feature in Java?

a. **No--everything it does could be done with a while.**
b. No--but it would be extremely difficult without it.
c. Yes--some loops can only be implemented with a do.
d. Yes--without it one of the major control structures would be lost.

What is the output of this program?

```
1.class comma_operator {
2.public static void main(String args[])
3.{
4.int sum = 0;
5.for (int i = 0, j = 0; i < 5 & j < 5; ++i, j = i + 1)
6.sum += i;
7.System.out.println(sum);
8.}
9.}
```

a) 5   b) 6   c) 14   d) compilation error

What is the output of this program?

```
1.class comma_operator {
2.public static void main(String args[])
3.{
4.int sum = 0;
5.for (int i = 0, j = 0; i < 5 & j < 5; ++i, j = i + 1)
6.sum += i;
7.System.out.println(sum);
8.}
9.}
```

a) 5   b) 6   c) 14   d) compilation error

FACE

Fill the blank so that the following fragment prints out 0.2, 0.4, 0.6, 0.8, 1.0,

```
for ( int j = 2; j <= 10; j++ )
System.out.print( _____ + ", " );
 System.out.println( );
```

a. j/10
c. (j+1.0)/10

b. j%10
d. j/10.0

FACE

Fill the blank so that the following fragment prints out 0.2, 0.4, 0.6, 0.8, 1.0,

```
for ( int j = 2; j <= 10; j=j+2 )
System.out.print( _____ + ", " );
 System.out.println( );
```

a. j/10

b. j%10

c. (j+1.0)/10

d. j/10.0

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Predict the output

```java
// Predict the output
class Test {
public static void main(String[] args)
    {
        for (int i = 0; i < 10; i++)
            int x = 10;
    }
}
```

a. No Output   b. Compile time error
c. Runtime error   d. Runtime Exception

Predict the output

```
// Predict the output
class Test {
public static void main(String[] args)
    {
        for (int i = 0; i < 10; i++)
            int x = 10;
    }
}
```

a. No Output

b. Compile time error

c. Runtime error

d. Runtime Exception

Predict the output

```
class Test {
public static void main(String[] args)
    {
        int i = 0;
        for (System.out.println("HI"); i < 1; i++)
            System.out.println("HELLO");
    }
}
```

a. HI HELLO

b. No Output

c. Compile time error

d. HELLO

Predict the output

```
class Test {
public static void main(String[] args)
    {
        int i = 0;
        for (System.out.println("HI"); i < 1; i++)
            System.out.println("HELLO");
    }
}
```

a. HI HELLO

b. No Output

c. Compile time error

d. HELLO

Predict the output

```
class Test {
public static void main(String[] args)
    {
        for (int i = 0;; i++)
            System.out.println("HELLO");
    }
}
```

a. HELLO   (infinitely)

b. No Output

c. Compile time error

d. HELLO

Predict the output

```
class Test {
public static void main(String[] args)
    {
        for (int i = 0;; i++)
            System.out.println("HELLO");
    }
}
```

a. **HELLO   (infinitely)**

b. No Output

c. Compile time error

d. HELLO

Predict the output

```
1.class Output {
2.public static void main(String args[])
3.{
4.final int a=10,b=20;
5.while(a<b)
6.{
7. System.out.println("Hello");
9.}
10.System.out.println("World");
11.}
13.}
```

a. Hello   **b. Hello world**

c. World   **d. compile time error**

Predict the output

```
1.class Output {
2.public static void main(String args[])
3.{
4.final int a=10,b=20;
5.while(a<b)
6.{
7. System.out.println("Hello");
9.}
10.System.out.println("World");
11.} }
```

a. Hello   **b. Hello world**

c. World   **d. compile time error**

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Predict the output

```
class Output {
public static void main(String args[])
{
int  j=50;
while(true)
{
   if(j<10)
      break;
      j=j-10;
  }
system.out.println("j is  "+j);
}
}
```

a. j is 0   **b.** j is 10
c. J is 50   **d.** Error

Predict the output

```
class Output {
public static void main(String args[])
{
int  j=50;
while(true)
{
   if(j<10)
      break;
      j=j-10;
 }
System.out.println("j is  "+j);
}
}
```

a. j is 0   b. j is 10
c. J is 50   d. Error

Predict the value of x and y

```
class Output {
public static void main(String args[])
{
int x , y = 0;
for(x=1;x<=5;++x) y = x++;
--y ;
}
}
```

a. 7 4   b. 6 4

c. 7 5   d. 6 5

Predict the value of x and y

```
class Output {
public static void main(String args[])
{
int x , y = 0;
for(x=1;x<=5;++x) y = x++;
--y ;
}
}
```

a. **7 4**

b. 6 4

c. 7 5

d. 6 5

Predict the output

```java
class ForSample
{

    public static void main(String s[])
    {
        for(int i = 0; i <= 5; i++ )
        {
            System.out.println("i = " + i );
        }

        System.out.println("i after the loop = " + i );
    }
}
```

a. i = 0
    i = 1
    i = 2
    i = 3
    i = 4
    i = 5
    i after the loop = 6

b. i = 0
i = 1
i = 2
i = 3
i = 4
i = 5
i = 6
i after the loop = 6

c. Compilation Error

d. i = 0
i = 1
i = 2
i = 3
i = 4
i = 5
i after the loop = 5

a. i = 0
   i = 1
   i = 2
   i = 3
   i = 4
   i = 5
   i after the loop = 6

b. i = 0
i = 1
i = 2
i = 3
i = 4
i = 5
i = 6
i after the loop = 6

c. **Compilation Error**

d. i = 0
i = 1
i = 2
i = 3
i = 4
i = 5
i after the loop = 5

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Predict the output

```java
public class LoopExample
{
    public static void main(String[] args)
    {
        for (char i = 0, j = 6; i < 5 && j > 0; i++, --j)
        {
         System.out.print((int) i + " " + (int) j + ", ");
        }
    }
}
```

a. 0 5, 1 4, 2 3, 3 2, 4 1,

b. 0 6, 1 5, 2 4, 3 3, 4 2,

c. No output

d. Error

Predict the output

```
public class LoopExample
{
    public static void main(String[] args)
    {
        for (char i = 0, j = 6; i < 5 && j > 0; i++, --j)
        {
         System.out.print((int) i + " " + (int) j + ", ");
        }
    }
}
```

a. 0 5, 1 4, 2 3, 3 2, 4 1,

b. 0 6, 1 5, 2 4, 3 3, 4 2,

c. No output

d. Error

What will be the output of the following program? Assume that the argument passed as - "Is the program Execute or Not".

```java
public class CommandLine {
    public static void main(String args[]) {
        for (int i = 0; i < args.length; i++)
            System.out.println("args[" + i + "]: " + args[i]);
    }
}
```

a. args[0]: Is
args[1]: the
args[2]: program
args[3]: Execute
args[4]: or
args[5]: Not

b. args[0]: Is
args[1]: the
args[2]: program

c. args[0]: Is the program
Execute or Not

d. Some other output

a. args[0]: Is
args[1]: the
args[2]: program
args[3]: Execute
args[4]: or
args[5]: Not

b. args[0]: Is
args[1]: the
args[2]: program

c. **args[0]: Is the program Execute or Not**

d. Some other output

FACE

Predict the output

```
public class LoopExample
{
    public static void main(String[] args)
    {
        for ( int j = 5; j > -5; j-- )
            System.out.print( j + " " );
        System.out.println( );
    }
}
```

a. 5 4 3 2 1 0 -1 -2 -3 -4   b. 5 4 3 2 1 0 -1 -2 -3

c. 5 4 3 2 1 0 -1 -2 -3 -4 -5   d. Infinite numbers starts from 5

Predict the output

```
public class LoopExample
{
    public static void main(String[] args)
    {
        for ( int j = 5; j > -5; j-- )
            System.out.print( j + " " );
        System.out.println( );
    }
}
```

a. 5 4 3 2 1 0 -1 -2 -3 -4   b. 5 4 3 2 1 0 -1 -2 -3

c. 5 4 3 2 1 0 -1 -2 -3 -4 -5   d. Infinite numbers starts from 5

What must the test be so that the following fragment prints out the integers -5 through and including 5?

```
for ( int j = -5; _____ ; j++ )
{ System.out.print( j + " " ); }
System.out.println( );
```

a. j<5   **b.** j<=5   **c.** j>5   **d.** j==5

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What must the test be so that the following fragment prints out the integers -5 through and including 5?

```
for ( int j = -5; _____ ; j++ )
{ System.out.print( j + " " ); }
System.out.println( );
```

a. j<5   **b.** j<=5   **c.** j>5   **d.** j==5

FACE

What will happen when you compile and run the following code?

```java
public class Test
{ public static void main(String[] args)
{ for(int i = 0; i < 5 ; i++)
{ System.out.print(i++); }
} }
```

a. Code will not compile

b. 01234

c. 135

d. 024

FACE

What will happen when you compile and run the following code?

```
public class Test
{ public static void main(String[] args)
{ for(int i = 0; i < 5 ; i++)
{ System.out.print(i++); }
} }
```

a. Code will not compile

b. 01234

c. 135

d. 024

FACE

Will this code compile?

```
public class Test{
public static void main(String[] args)
{ for(;;){} }
}
```

a. Yes

b. No

Will this code compile?

```
public class Test{
public static void main(String[] args)
{ for(;;){} }
}
```

a. **Yes**

b. No

What will happen when you compile and run the following code?

```java
public class Test
{ public static void main(String[] args){
  int i = 10;
for(; i > 0;)
System.out.print(i + " ");
i--;
} }
```

a. Compilation
Error

b. 10 9 8 7 6 5 4 3 2 1

c. 10 9 8 7 6 5 4 3 2 1 0

d. None of the
above

What will happen when you compile and run the following code?

```java
public class Test
{ public static void main(String[] args){
  int i = 10;
for(; i > 0;)
System.out.print(i + " ");
i--;
} }
```

a. Compilation Error

b. 10 9 8 7 6 5 4 3 2 1

c. 10 9 8 7 6 5 4 3 2 1 0

d. None of the above

FACE

What will happen when you compile and run the following code?

```java
public class Test{
public static void main(String[] args){
for(int i = 0 ; i < 3 ; i++)
System.out.println(i + " ");
System.out.println(i + " ");
} }
```

a. 0 1 2 3

b. 0 0 1 1 2 2

c. 0 1 2 2

d. None of the above

FACE

What will happen when you compile and run the following code?

```java
public class Test{
public static void main(String[] args){
for(int i = 0 ; i < 3 ; i++)
System.out.println(i + " ");
System.out.println(i + " ");
} }
```

a. 0 1 2 3   b. 0 0 1 1 2 2   c. 0 1 2 2   d. None of the above

What will happen when you compile and run the following code?

```java
public class Test{
public static void main(String[] args){
for(int i = 0; i < 3; i++)
{ for(int j = 0; j < i; j++)
{ System.out.print(i + " " + j + ", "); } } } }
```

a. 0 0, 0 1, 0 2, 1 0, 1 1, 1 2, 2 0, 2 1, 2 2,

b. 0 0, 0 1, 0 2, 0 3, 1 0, 1 1, 1 2, 1 3, 2 0, 2 1, 2 2, 2 3,

c. 1 0, 2 0, 2 1

d. None of the above

FACE

What will happen when you compile and run the following code?

```java
public class Test{
public static void main(String[] args){
for(int i = 0; i < 3; i++)
{ for(int j = 0; j < i; j++)
{ System.out.print(i + " " + j + ", "); } } } }
```

a. 0 0, 0 1, 0 2, 1 0, 1 1, 1 2, 2 0, 2 1, 2 2,

b. 0 0, 0 1, 0 2, 0 3, 1 0, 1 1, 1 2, 1 3, 2 0, 2 1, 2 2, 2 3,

c. 1 0, 2 0, 2 1

d. None of the above

- **Analyze the following code.**

```
int count = 0;
while (count < 100) {
  // Point A
  System.out.println("Welcome to Java!");
  count++;
  // Point B
}
  // Point C
```

a. count < 100 is always true at Point B

b. count < 100 is always false at Point B

c. count < 100 is always true at Point A and count < 100 is always false at Point C

d. count < 100 is always true at Point C

- **Analyze the following code.**

```
int count = 0;
while (count < 100) {
  // Point A
  System.out.println("Welcome to Java!");
  count++;
  // Point B
}
  // Point C
```

a. count < 100 is always true at Point B

b. count < 100 is always false at Point B

c. **count < 100 is always true at Point A and count < 100 is always false at Point C**

d. count < 100 is always true at Point C

How many times is the println statement executed?

```
for (int i = 0; i < 10; i++)
  for (int j = 0; j < 10; j++)
  System.out.println(i * j);
```

a. 100

b. 1000

c. 20

d. 10

How many times is the println statement executed?

```
for (int i = 0; i < 10; i++)
  for (int j = 0; j < 10; j++)
  System.out.println(i * j);
```

a. **100**

b. 1000

c. 20

d. 10

what is the output for y?

```
int y = 0;
for (int i = 0; i<10; ++i) {
 y += i;
}
System.out.println(y);
```

a. 1

b. 36

c. 45

d. 9

what is the output for y?

```
int y = 0;
for (int i = 0; i<10; ++i) {
 y += i;
}
System.out.println(y);
```

a. 1

b. 36

c. 45

d. 9

The following loop displays _____.

```
for (int i = 1; i <= 10; i++) {
  System.out.print(i + " ");
  i++;
}
```

a. 1 2 3 4 5 6 7 8 9
b. 1 2 3 4 5 6 7 8 9 10
c. 1 2 3 4 5
d. 1 3 5 7 9

The following loop displays _____.

```java
for (int i = 1; i <= 10; i++) {
  System.out.print(i + " ");
  i++;
}
```

a. 1 2 3 4 5 6 7 8 9
b. 1 2 3 4 5 6 7 8 9 10
c. 1 2 3 4 5
d. **1 3 5 7 9**

What will be displayed when the following code is executed?

```java
int number = 6;
while (number > 0) {
number -= 3;
System.out.print(number + " ");
}
```

a. 6,3,0

b. 6,3

c. 3,0

d. 0

What will be displayed when the following code is executed?

```
int number = 6;
while (number > 0) {
number -= 3;
System.out.print(number + " ");
}
```

a. 6,3,0

b. 6,3

c. **3,0**

d. 0

Which of the following loops prints "Welcome to Java" 10 times?

a. for (int count = 1; count <= 10; count++) {
     System.out.println("Welcome to Java");

b. for (int count = 2; count < 10; count++) {
     System.out.println("Welcome to Java");
   }

c. for (int count = 1; count < 10; count++) {
     System.out.println("Welcome to Java");
   }

d. for (int count = 0; count <= 10; count++) {
     System.out.println("Welcome to Java");
   }

Which of the following loops prints "Welcome to Java" 10 times?

a. **for (int count = 1; count <= 10; count++) {**
      System.out.println("Welcome to Java");

b. for (int count = 2; count < 10; count++) {
      System.out.println("Welcome to Java");
    }

c. for (int count = 1; count < 10; count++) {
      System.out.println("Welcome to Java");
    }

d. for (int count = 0; count <= 10; count++) {
      System.out.println("Welcome to Java");
    }

The for loop is primarily used to:

a. Repeatedly execute a section of code

b. Conditionally execute a section of code

c. Branch to another section of code

The for loop is primarily used to:

a. **Repeatedly execute a section of code**

b. Conditionally execute a section of code

c. Branch to another section of code

What will be displayed when the following code is executed?

```java
public class Highlight {
    public static void main(String[] args) {
        int[] numbers = {10, 20, 30, 40, 50, 60, 70, 80, 90};
        for (int x : numbers) {
            if (x == 30 || x == 60 || x == 90 || x == 120) {
                continue;
            }
            System.out.print(x + " ");
            continue;
        }
    }
}
```

a. 10 20 30 40 50 60 70 80 90 120	C 10 20 30 40 50 60 70 80 90
b. 10 20 40 50 70 80	d. Compilation Error

What will be displayed when the following code is executed?

```java
public class Highlight {

    public static void main(String[] args) {
        int[] numbers = {10, 20, 30, 40, 50, 60, 70, 80, 90};
        for (int x : numbers) {
            if (x == 30 || x == 60 || x == 90 || x == 120) {
                continue;
            }
            System.out.print(x + " ");
            continue;
        }
    }
}
```

a. 10 20 30 40 50 60 70 80 90 120	C 10 20 30 40 50 60 70 80 90
b. 10 20 40 50 70 80	d. Compilation Error

What will be the value of x, when the following code is

```java
public class GuessWhat
{
    public static void main(String args[])
    {
        int a[] = {11, 6, 17, 8, 9, 34, 14};
        System.out.println(guessWhat(a));
    }
    public static int guessWhat(int arr[])
    {
        int x = 0;
        for (int element : arr)
        x = x < element ? element : x;
        return x;
    }   }
```

a.Returns the index of the highest element in the array	c. Returns true/false if there are any elements that repeat in the array
b. Returns the highest element in the array	d. Returns the index of the lowest element in the array

What will be the value of x, when the following code is

```java
  public class GuessWhat
{
    public static void main(String args[])
    {
        int a[] = {11, 6, 17, 8, 9, 34, 14};
        System.out.println(guessWhat(a));
    }
    public static int guessWhat(int arr[])
    {
        int x = 0;
        for (int element : arr)
        x = x < element ? element : x;
        return x;
    }  }
```

a.Returns the index of the highest element in the array	**c.** Returns true/false if there are any elements that repeat in the array
b. Returns the highest element in the array	**d.** Returns the index of the lowest element in the array

What will be the output of the following program?

```java
public class Statement
{
    public static void main(String[] args)
    {
        int[] numbers = {10, 20, 30, 40, 50, 60, 70, 80, 90};
        for (int x : numbers)
        {
            if (x == 30 || x == 60 || x == 90 || x == 120)
            {
                continue;
            }
            System.out.print(x + " ");
            continue;      // LINE 1
            break;         // LINE 2
        }    }
}
```

a. 10 20 40 50 70 80	c. Compilation Error at LINE 1
b. Compilation Error at LINE 2	d. 10 20 30 40 50 60 70 80 90

What will be the output of the following program?

```java
public class Statement
{
    public static void main(String[] args)
    {
        int[] numbers = {10, 20, 30, 40, 50, 60, 70, 80, 90};
        for (int x : numbers)
        {
            if (x == 30 || x == 60 || x == 90 || x == 120)
            {
                continue;
            }
            System.out.print(x + " ");
            continue;       // LINE 1
            break;          // LINE 2
        }   }
}
```

a. 10 20 40 50 70 80	c. Compilation Error at LINE 1
b. **Compilation Error at LINE 2**	d. 10 20 30 40 50 60 70 80 90

What will be the output of the following program?

```java
class Test {
Public    static void main(String[] args)
    {
        do
            System.out.println("FRIENDS");
        while (true);
        System.out.println("ENEMY");
    }
}
```

a. Compile time error	c. FRIENDS
b. FRIENDS (infinitely)	d. FRIENDS ENEMY

What will be the output of the following program?

```java
class Test {
Public     static void main(String[] args)
     {
          do
               System.out.println("FRIENDS");
          while (true);
          System.out.println("ENEMY");
     }
}
```

a. **Compile time error**	c. FRIENDS
b. FRIENDS (infinitely)	d. FRIENDS ENEMY

THANK YOU

FACE