**Recursion**

1. What is returned by the method call: **doSomething(6)** ?

public int doSomething(int n)

{

if(n == 0)

return 0;

else

return 1 + doSomething(n - 1);

}

1. 0
2. 6
3. 12
4. 36
5. 21
6. What is returned by the method call: **doSomething(6)** ?

public int doSomething(int n)

{

if(n == 0)

return 0;

else

return n + doSomething(n - 1);

}

1. 0
2. 6
3. 12
4. 36
5. 21
6. Consider the following method.

public int whoKnows(int n)

{

if(n == 0 || n == 1)

return 0;

else

return n + whoKnows(n - 1) + whoKnows(n - 2);

}

What value does **whoKnows(6)** return?

1. 6
2. 15
3. 20
4. 38
5. 120
6. Consider the following method.

public int crazy(int a, int b)

{

if(a < b)

return a;

else

return b + crazy(a-1, b+1);

}

What value does **crazy(4, 2)** return?

1. 8 d. 3
2. 7 e. 2
3. 4
4. Consider the following method.

public void surprise(int k, String s)

{

if(k < s.length())

{

System.out.print(s.substring(k, k+1));

surprise(k + 1, s);

System.out.print(s.substring(k, k+1));

}

}

Which of the following is output as a result of the call **surprise(0, "123456789").**

1. 987654321234566789 d. 0123456789876543210
2. 123456789987654321 e. 123456789000000000
3. 12345678987654321
4. Consider the following method.

public int doesWhat(int n)

{

if(n <= 1)

return 1;

else if(n % 2 == 0)

return n - doesWhat(n - 1);

else

return n + doesWhat(n - 1);

}

What value does **doesWhat(7)** return?

1. 0 d. 5
2. 1 e. 8
3. 4