**Recursion Test 1 key**

1. What is returned by the method call: **rec(4)** ?

public int rec(int n)

{

if(n <= 1)

return 1;

else

return n + rec(n - 1);

}

1. 4 d. 10
2. 1 e. -1
3. 24
4. What is returned by the method call: **recurs (7)** ?

public int recurs(int n)

{

int result = 0;

if(n <= 3)

result = 2;

else

result = recurs(n - 2) + (n - 2);

return result;

}

1. 10 d. 7
2. 2 e. 20
3. 4
4. Consider the following method.

public int rec(int n)

{

if(n <= 1)

return 0;

else

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

}

What value does **rec(5)** return?

1. 0 d. 21
2. 5 e. 38
3. 11
4. Consider the following method.

public int go(int a, int b)

{

if(a > b)

return a;

else

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

}

What value does **go(3, 6)** return?

1. 5 d. 23
2. 16 e. 38
3. 9
4. Consider the following method.

public String loopy(String s, int x)

{

if( x <= 0 )

return s;

else

return x + s + loopy(s, x - 2);

}

Which of the following is output as a result of the call **loopy("", 5).**

1. 531-1 d.135
2. 531 e. 135531
3. -1135
4. Consider the following method.

public int rec(int n)

{

if(n <= 1)

return 1;

else if(n % 2 == 0)

return n - rec(n - 1);

else

return n + rec(n - 1);

}

What value does **rec(8)** return?

1. 0 d. 12
2. 1 e. 33
3. 8