

# Recursion Test 1

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);
}
```

- a. 24
- b. 6
- c. 16
- d. 256
- e. 1

2. What is returned by the method call: **meow (5)** ?

```
public int meow(int n)
{
    int ans = 0;
    if(n <= 2)
        ans = 2;
    else
        ans = meow(n - 1) + (n - 1);
    return ans;
}
```

- a. 0
- b. 2
- c. 16
- d. 7
- e. 11

3. Consider the following method.

```
public int ruff(int n)
{
    if(n <= 1)
        return 0;
    else
        return n + ruff(n - 1) + ruff(n - 2);
}
```

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

- a. 21
- b. 2
- c. 38
- d. 11
- e. 66

4. Consider the following method.

```
public int moo(int a, int b)
{
    if(a <= b)
        return a;
    else
        return b + moo(a-1, b+1);
}
```

What value does **moo(7, 4)** return?

- a. 4
- b. 14
- c. 9
- d. 12
- e. 28

5. Consider the following method.

```
public String baa(String s, int x)
{
    if( x <= 0 )
        return s;
    else
        return s + baa(s, x - 1);
}
```

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

- a. sheepsheepsheepsheepsheepsheep
- b. sheepsheepsheepsheepsheep
- c. sheep
- d. peehs
- e. sssss

6. Consider the following method.

```
public int oink(int n)
{
    if(n <= 1)
        return 1;
    else if(n % 2 == 0)
        return n - oink(n - 1);
    else
        return n + oink(n - 1);
}
```

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

- a. 0
- b. 1
- c. 8
- d. 12
- e. 33