- 1. What are two features that must be found in every recursive method?
- 2. Write a recursive method **evenFactorial** which returns the even factorial of a number (that is, the product of all positive even integers less than or equal to n). The factorial of 0 is 1.

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 \begin{tabular}{ll} public static int evenFactorial (int n) \\ \{ \end{tabular}
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3. Write a recursive method **spaceIt** to print the digits of an integer on a single line with 2 spaces between each digit. So spaceIt(123) prints "1 2 3".

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Unit 10/Recursion Practice

}

Name: ____

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4. Given the following array how many times would a recursive binary search method be called when searching for the value 21?

```
int[] array = {3, 6, 8, 11, 14, 16, 21, 22};
```

5. Given the following array how many times would a recursive binary search method be called when searching for the value 6?

```
int[] array = {0, 1, 2, 3, 4, 5, 7, 8, 9, 9};
```

6. What is returned by the call mystery(4)?

```
public static int mystery(int a)
{
   if(a>11)
     return 5;
   return a + mystery(a+3);
}
```

7. What is returned by the call mystery(6)?

```
public static int mystery(int a)
{
   if(a==3)
     return 1;
   return a * mystery(a-1);
}
```

8. What is printed by the call mystery(4)?

```
public static void mystery(int a)
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    System.out.print(a);
    if(a<7)
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}</pre>
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