



KenBox Exercise

This example illustrates how much faster it is to count the number of children in the KenBox Example using the iterative vs the recursive methods.

300% faster

	Recursive	Iterative
Number of children	59	59
Execution time	388993	85325

Recursive

```
public int getNumberOfChildBoxesRecurse(KenBox box)
{
    if (box.containedBox is KenBox)
    {
        return getNumberOfChildBoxesRecurse(box) + 1;
    }
    return 0;
}

public int NumberOfContainedBoxesRecursive
{
    get
    {
        return getNumberOfChildBoxesRecurse(this);
    }
}
```

Iterative

```
public int NumberOfContainedBoxesIterative
{
    get
    {
        int i = 0;
        KenBox child = this.containedBox;
        while (child is KenBox)
        {
            i++;
            if (child.containedBox is KenBox) { child = child.
            else { child = null; }
        }
        return i;
    }
}
```