Question 51 states the following:

What is the time complexity of this function? Assume the initial value of i is one and j is zero.

```java
function f(i,j,n)
    {
        if (i < n)
            {
                if (j < n)
                    f(i,j+1,n);
                else
                    f(i*2,0,n);
            }
        println(i,j);
    }
```

I've boiled the question down to be either n*log(n) or n*sqrt(n). I am unsure how i*2 would result in, but I feel it would result in a sqrt(n) amount of runtime.

What would make code result in log(n) and what would make it result in sqrt(n)?