Gamma

Give the best and worst case runtime in $\Theta(.)$ notation as a function of N. Your answer should be simple with no unnecessary leading constants or summations. Assume f(N) returns a random number between 1 and N/2, inclusive, and does so in constant time.

```
1   static void gamma(int N) {
2       if (N <= 10) {
3           return;
4       }
5       for (int i = f(N); i < N; i += f(N)) {
6           gamma(i);
7       }
8   }
```

Best Case: $\Theta($ $)$, Worst Case: $\Theta($ $)$