

1) (5 pts) DSN (Recursive Coding)

Write a **recursive function** below so that it returns the maximum integer k such that $\text{base}^k \leq \text{ans}$. For example if base is 3 and ans is 123, then 4 should be returned since $3^4 = 81$ and $3^5 = 243$. The restricted bounds below are to ensure that integer overflow isn't an issue.

```
// Pre-condition: 1 < base <= 1000, 1 <= ans <= 1000000  
int maxpowLTE(int base, int ans) {
```

```
}
```