

## 1) (10 pts) DSN (Recursive Coding)

The code below returns the number of zeros at the end of  $n!$

```
int zeros(int n) {  
    int res = 0;  
    while (n != 0) {  
        res += n/5;  
        n /= 5;  
    }  
    return res;  
}
```

Rewrite this method *recursively*:

```
int zeros(int n) {  
  
    if (n == 0) return 0; // 2 pts if n==0, 1 pt ret 0  
    return n/5 + zeros(n/5); // 1 pt return, 2 pts n/5, 1 pt +  
                           // 1 pt rec call, 2 pts n/5.  
  
}
```