

Frame
Number

#4 `main ()`

#3 `fact (3)`

#2 `fact (2)`

#1 `fact (1)`

#0 `fact (0)`

#-1

`i = 3`
`f = ?`

`n = 3`

`n = 2`

`n = 1`

`n = 0`

Red Xerox

```
int fact( int n )  
{  
    if( 0 == n ) {  
        return 1;    ← PC  
    }  
    else {  
        return n * fact( n - 1 );  
    }  
}
```

```
main()  
{  
    int i;  
    for( i = 0 ; i < 10 ; i++ ) {  
        int f = fact( i );  
        printf( "%d! = %d\n", i, f );  
    }  
}
```

FP

SP

Direction of
stack growth

