

```

int f (int x, int y) {
    int r = 1;
    while (y > 1) {
        if (y % 2 == 1) {
            r = x * r;
        }
        x = x * x;
        y = y / 2;
    }
    return r * x;
}

```

x	2	5					
y	8	3					
result							

loop iter			
1	2	8	1
2			
3			
4			
5			

loop iter			
1			
2			
3			
4			
5			

loop iter			
1			
2			
3			
4			
5			

loop iter			
1			
2			
3			
4			
5			