

For the following functions, give the best Big O() descriptions:

```
def make_list2(n):  
    res = []  
    for i in range(n):  
        val = i**3 - 21  
        res.insert(0, val)  
    return res
```

Answer:_____

```
def do_stuff2(n, x=1.23):  
    if n <= 0:  
        return 0  
    val = 1  
    for i in range(n//2):  
        for j in range(n//4):  
            x += 2*x + j/2 + i*1.2  
    while val <= n:  
        for i in range(n):  
            x += val**2 + i//2  
        val *= 2  
    x += do_stuff2(n - 1, x/2)  
    return x
```

Answer:_____

```
def do_thing2(n):  
    x = 3.25;  
    val = 1  
    while val <= n:  
        for j in range(n):  
            x += 2*x + j/2 + val*1.2  
        val *= 2  
    return x
```

Answer:_____

```
def do_something2(n, x=0):  
    if n <= 0:  
        return 0  
    for i in range(n):  
        x += 2*x + i*1.2  
    x += do_something(n//2, x - 1)  
    return x
```

Answer:_____