1.

0	35
1	
2	
3	3 → 24
4	
5	12 → 5
6	

2.

0	35
1	
2	
3	3
4	24
5	12
6	5

3.

0	35 → 24
1	
2	5
3	3
4	
5	12
6	

4. $f(n) - f(n-1) = 3n$

$f(n-1) - f(n-2) = 3(n-1)$

$\vdots \qquad \vdots$

$f(1) - f(0) = 3$

$f(n) - f(0) = 3[n + (n-1) + \cdots + 1]$

$f(n) = 3 \cdot \dfrac{n(n+1)}{2} + 7$

$\qquad = \dfrac{3}{2}n^2 + \dfrac{3}{2}n + 7$

5. ii) $r \to level 1 [1] \to level 2 2 [2] \to level 3.$