Explicit and Recursive HW

For each sequence write the recursive and explicit formulas.

    1. 12, 13, 15, 18, 22...

    2. 16, 10, 7, 5.5, 4,75...

    3. 3, 8, 18, 38, 78...

    4. -5, -2, 3, 10, 19...

Write a proof showing that the two formulas are equivalent.

5. $t_n = 3n^2 + n - 1$

$$\begin{cases} t_1 = 3 \\ t_{n+1} = t_n + 6n + 4 \end{cases}$$

6. $g_n = -2(4)^{n-1}$

$$\begin{cases} g_1 = -2 \\ g_{n+1} = g_n \cdot 4 \end{cases}$$