Diamond patterns

This task is about patterns and their rules.

Loretta made some patterns using green and white diamonds.

| Pattern 1 | Pattern 2 | Pattern 3 | Pattern 4 |

a) Complete the table below to show the number of green and white diamonds that each pattern would have.

Pattern Number (n)	1	2	3	4	5	6	...	10	25
Number of Green Diamonds, (b)	3	4							
Number of White Diamonds, (w)	4	6							

b) i) the number of green diamonds (b) to the pattern number (n).

$b =$

ii) the number of white diamonds (w) to the pattern number (n).

$w =$

c) What pattern number would Loretta have painted if the pattern had a total of 86 white diamonds?

Pattern number