Sequences

Question

A sequence is defined by the following recursive formula:

$$a_1 = 2$$
$$a_n = a_{n-1} + 4$$

Which of the following explicit formulas generates the same sequence?

(a) $a_n = 4n - 2$

(b) $a_n = 4n$

(c) $a_n = 2^n$

(d) $a_n = 2 + 4(n - 1)$

Answer: (a) and (d) are both correct. Using slope intercept form or arithmetic sequence form.