Answer on Question #76502 – Math – Algebra

Question

What is the 9th term in the sequence below??

f(1)=62, f(n) = f(n-1) – 3

Solution

We have

$$a_1 = 62 \text{ and } a_n = a_{n-1} - 3.$$

Given sequence is the arithmetic progression with the common difference of -3.

The first term is 62.

In arithmetic progressions we can find nth term by the formula

$$a_n = a_1 + (n-1)d \ .$$

In our case we have

$$a_n = 62 - 3(n-1) \ .$$

The 9th term is

$$a_9 = 62 - 3(9 - 1) = 62 - 3 \cdot 8 = 62 - 24 = 38.$$

Answer: the 9th term of the sequence below is 38.