

Recursive Formulas for Arithmetic Sequences

A) Write the arithmetic sequence using the recursive formula.

1) $a_n = a_{n-1} + 7 ; a_1 = -27$

2) $a_n = a_{n-1} - 9 ; a_1 = 69$

3) $a_n = a_{n-1} + 8.8 ; a_1 = 9.2$

4) $a_n = a_{n-1} - \frac{5}{7} ; a_1 = -\frac{1}{7}$

5) $a_n = a_{n-1} - 4 ; a_1 = -135$

6) $a_n = a_{n-1} + 3 ; a_1 = 21$

B) Write the recursive formula for each arithmetic sequence.

1) 15.3, 9.6, 3.9, -1.8, -7.5, ...

2) $\sqrt{2}, 5\sqrt{2}, 9\sqrt{2}, 13\sqrt{2}, 17\sqrt{2}, \dots$

3) 10, 16, 22, 28, 34, ...

4) $-\frac{4}{9}, -\frac{1}{9}, \frac{2}{9}, \frac{5}{9}, \frac{8}{9}, \dots$
