

Recursive Formula

Part A

Write the geometric sequence using recursive formula.

1) $a_n = a_{n-1} \cdot -3 ; a_1 = 90$

2) $a_n = a_{n-1} \cdot 0.7 ; a_1 = 4$

3) $a_n = a_{n-1} \cdot 6 ; a_1 = -15$

$a_1 = -15$

5) $a_n = a_{n-1} \cdot \frac{2}{3} ; a_1 = -1$

$a_1 = -1$

Write the recursive formula for the sequence.

7) $2, 2\sqrt{5} + 6, 12\sqrt{5} + 18, \dots$

$2, 6, 10, 14, 18, 22, 26, 30, 34, 38, 42, 46, 50, 54, 58, 62, 66, 70, 74, 78, 82, 86, 90, 94, 98, 102, 106, 110, 114, 118, 122, 126, 130, 134, 138, 142, 146, 150, 154, 158, 162, \dots$

9) $2, -9, 40.5, -182.25, 820.125, \dots$

10) $-13, -52, -208, -832, -3328, \dots$

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Part A

Write the geometric sequence using recursive formula.

1) $a_n = a_{n-1} \cdot -3 ; a_1 = 90$

2) $a_n = a_{n-1} \cdot 0.7 ; a_1 = 4$

90, -270, 810, -2430, ...

4, 2.8, 1.96, 1.372, ...

3) $a_n = a_{n-1} \cdot 6 ; a_1 = -15$

$a_1 = -15$

12, 72, 432, ...

-375, 1875, ...

5) $a_n = a_{n-1} \cdot \frac{2}{3} ; a_1 = -1$

$a_1 = -1$

$-\frac{1}{4}, -\frac{1}{6}, \dots$

-81, -729, ...

Write the recursive formula for the sequence.

7) $2, 2\sqrt{5} + 6, 12\sqrt{5} + 18, \dots$

$5, \frac{5}{4}, \frac{5}{16}, \dots$

$a_n = a_{n-1} \cdot \sqrt{5} + 3$

$a_n = a_{n-1} \cdot -\frac{1}{3}$

9) $2, -9, 40.5, -182.25, 820.125, \dots$

10) $-13, -52, -208, -832, -3328, \dots$

$a_n = a_{n-1} \cdot -4.5$

$a_n = a_{n-1} \cdot 4$

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