

Name : _____

Recursive Formula

Sheet 1

Write the recursive formula for each geometric sequence.

1) 15, -45, 135, -405, ...

2) 4, 8, 16, 32, 64, 128, ...

3) $2\sqrt{3}, 4\sqrt{3}, 8\sqrt{3}, \dots$

$\frac{128}{243}, \dots$

5) 0.4, 2.4, 14.4, 86.4, ...

-750, -3750, ...

7) $-\frac{2}{5}, \frac{8}{15}, -\frac{32}{45}, \dots$

-399.3, ...

9) -67, 134, -268, 536, -1072, ...

10) -1, -9, -81, -729, -6561, ...

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Recursive Formula

Write the recursive formula for each geometric sequence.

1) 15, -45, 135, -405, ...

2) 4, 8, 16, 32, 64, 128, ...

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

$$a_n = a_{n-1} \cdot 2$$

3) $2\sqrt{3}, 4\sqrt{3}, 8\sqrt{3},$

$\frac{128}{243}, \dots$

PREVIEW

$a_n =$

$a_{n-1} \cdot \frac{2}{3}$

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5) 0.4, 2.4, 14.4, 86.4, ...

-750, -3750, ...

$a_n =$

$a_{n-1} \cdot 5$

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7) $-\frac{2}{5}, \frac{8}{15}, -\frac{32}{45}, \dots$

-399.3, ...

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

$$a_n = a_{n-1} \cdot -11$$

9) -67, 134, -268, 536, -1072, ...

10) -1, -9, -81, -729, -6561, ...

$$a_n = a_{n-1} \cdot -2$$

$$a_n = a_{n-1} \cdot 9$$