Sequences · Grade 11

Read each question carefully. They're not all the same kind of question.

Name _____ Date _____ Score _____ / 6

01 What is a recursive formula for 3, 9, 27, 81, ...?

Answer: _____

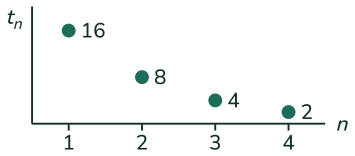
02 What is the general term of 81, 27, 9, 3, ...?

Answer: _____

03 The sequence 11, __, __, 88 is geometric. What are the missing terms?

Answer: _____

04 The graph shows the first four terms of a sequence. What is a recursive formula for it?



Answer: _____

05 What is t_8 in 3, −9, 27, −81, ...?

Answer: _____

06 The table shows four terms of a sequence. What is its general term?

n	2	3	4	5
t_n	8	16	32	64

Answer: _____

Sequences · Grade 11 (Answer Key)

Read each question carefully. They're not all the same kind of question.

01 What is a recursive formula for 3, 9, 27, 81, ...?

$t_1 = 3, t_n = 3t_{n-1}$

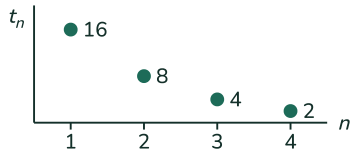
02 What is the general term of 81, 27, 9, 3, ...?

$t_n = 81\left(\frac{1}{3}\right)^{n-1}$

03 The sequence 11, __, __, 88 is geometric. What are the missing terms?

22, 44

04 The graph shows the first four terms of a sequence. What is a recursive formula for it?



$t_1 = 16, t_n = \frac{1}{2}t_{n-1}$

05 What is t_8 in 3, −9, 27, −81, ...?

−6561

06 The table shows four terms of a sequence. What is its general term?

n	2	3	4	5
t_n	8	16	32	64

$t_n = 4(2)^{n-1}$