

**Determine terms of a geometric sequence****1**

1, 1, 2, 3, 5, 8, 13

A Fibonacci

B Increasing (Arithmetic)

2

3, 9, 27

A

5^y

B

2^y

C

4^y

D

3^y

E

1^y

F

0^y

3

3, 6, 12, 24, 48, 96

A Start at 3 and multiply by 2 for each term

B Start at -1 and multiply by 2 for each term

C Start at 3 and add 2 for each term

D Start at 3 and multiply by 6 for each term

E Start at 3 and multiply by 4 for each term

F Start at 7 and multiply by 2 for each term

4

1, ?, 9, 27, 81, 243

A

33

B

18

C

23

D

28

E

3

F

13

5

Find the rule that describes this pattern equation

$$a_n = 2 \times 4^{n-1}$$

A Start at 6 and multiply by 4 for each term

B Start with 2 and 6. Add the prior two terms for each subsequent term

C Start at 3 and multiply by 4 for each term

D Start at -1 and multiply by 4 for each term

E Start at 2 and multiply by 8 for each term

F Start at 2 and multiply by 4 for each term

6

Start at 1 and multiply by 3 for each term

A

$a_n = 2 \times 3^{n-1}$

B

$a_n = 0 \times 3^{n-1}$

C

$a_n = 1 \times 2^{n-1}$

D

$a_n = 1 \times 3^{n-1}$

E

$a_n = 1 \times 5^{n-1}$

F

$a_n = 5 \times 3^{n-1}$

7

3, 6, 12, 24, 48, 96

A $a_n = 3 - 2(n-1)$

B $a_n = 2 \times 2^{n-1}$

C $a_n = 3 \times 3^{n-1}$

D $a_n = 3 \times 0^{n-1}$

E $a_n = -1 \times 2^{n-1}$

F $a_n = 3 \times 2^{n-1}$

8What are the first 3 terms, starting with $c = 1$ in this number sequence

5^c

A

1, 32, 243

B

5, 40, 135

C

15, 20, 25

D

5, 20, 45

E

5, 25, 125

F

5, 160, 1215

**Determine terms of a geometric sequence****9**

Choose the first values that this equation would create starting with $n=1$

$$a_n = 2 \times 2^{n-1}$$

A 2, 4, 6, 10, 16, 26

B 2, 4, 6, 8, 10, 12

C 2, 4, 8, 16, 32, 64

D 2, 8, 32, 128, 512, 2,048

E 2, 10, 50, 250, 1,250, 6,250

F 1, 2, 4, 8, 16, 32

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Start at 2 and multiply by 3 for each term

A 2, 5, 8, 11, 14, 17

B 2, 6, 18, 54, 162, 486

C 5, 15, 45, 135, 405, 1,215

D 2, 0, 0, 0, 0, 0

E 3, 9, 27, 81, 243, 729

F 4, 12, 36, 108, 324, 972

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What is the term in this number sequence when $c = 2$

$$2^c$$

A 8

B 4

C 16

12

Choose the first values that this equation would create starting with $n=1$

$$a_n = 1 \times 5^{n-1}$$

A 1, 6, 36, 216

B -3, -15, -75, -375

C 1, 6, 7, 13

D 1, 6, 11, 16

E 1, 5, 25, 125

F 1, -4, -9, -14