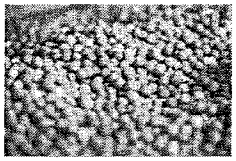
Name: Sequences | 3.6

Ready, Set, Go!



Ready

Topic: Arithmetic and geometric sequences

Find the missing values for each arithmetic or geometric sequence. Then say if the sequence has a constant difference or a constant ratio, and say what the constant difference/rate is.

1. 5, 10, 15, ___, 25, 30...

Constant difference or a constant ratio?

The constant difference/ratio is _____.

2. 20, 10, ___, 2.5, ___...

Constant difference or a constant ratio?

The constant difference/ratio is _____.

3. 2, 5, 8, ___, 14, ___...

Constant difference or a constant ratio?

The constant difference/ratio is _____.

4. 30, 24, ___, 12, 6...

Constant difference or a constant ratio?

The constant difference/ratio is _____.

Set

Topic: Recursive and explicit equations

Determine whether each situation represents an arithmetic or geometric sequence and then find the recursive and explicit equation for each.

5. 2 , 4 , 6 , 8 , ...

Arithmetic or Geometric?

Recursive: _____

Explicit: _____

6. 2 , 4 , 8 , 16 , ...

Arithmetic or Geometric?

Recursive: _____

Explicit: _____

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7.

Time (days)	Number of Dots
1	3
2	7
3	11
4	15

Arithmetic or Geometric?

Recursive: _____

Explicit: _____

8.

Time (days)	Number of cells
1	5
2	8
3	12.8
4	20.48

Arithmetic or Geometric?

Recursive: _____

Explicit: _____

9. Michelle likes chocolate but it causes acne. She chooses to limit herself to three pieces of chocolate every five days.

Arithmetic or Geometric?

Recursive: _____

Explicit: _____

10. Scott decides to add running to his exercise routine and runs a total of one mile his first week. He plans to double the number of miles he runs each week.

Arithmetic or Geometric?

Recursive: _____

Explicit: _____

11. Vanessa has $60 to spend on rides at the State Fair. Each ride cost $4.

Arithmetic or Geometric?

Recursive: _____

Explicit: _____

12. Cami invested $6,000 dollars into an account that earns 10% interest each year.

Arithmetic or Geometric?

Recursive: _____

Explicit: _____

Name: Sequences | 3.6

Go

Topic: Solving systems of linear equations

Solve the system of equations.

15. $\begin{cases} y = 2x - 10 \\ x - 4y = 5 \end{cases}$

16. $\begin{cases} x - 7y = 6 \\ -3x + 21y = -18 \end{cases}$

17. $\begin{cases} 5x - 4y = 3 \\ 6x + 4y = 30 \end{cases}$

18. $\begin{cases} 2x - 3y = -12 \\ -x + 2y = 4 \end{cases}$

Need help? Check out these related videos

Arithmetic and geometric sequences http://www.youtube.com/watch?v=THV2Wsf8hro