Ready, Set, Go!

Ready

Topic: Arithmetic and geometric sequences

Find the missing values for each arithmetic or geometric sequence. Then

1. 5, 10, 15, ___, 25, 30…
   Does this sequence have a constant difference or a constant rate?_____
   what is the value? _____

2. 20, 10, ___, 2.5, ___...
   Does this sequence have a constant difference or a constant rate?_____
   what is the value? _____

3. 2, 5, 8, ___, 14, ___...
   Does this sequence have a constant difference or a constant rate?_____
   what is the value? _____

4. 30, 24, ___, 12, 6…
   Does this sequence have a constant difference or a constant rate?_____
   what is the value? _____

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 …
6. 2, 4, 8, 16…
7.

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

8.

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

9. Michelle likes chocolate but ths it causes acne. She chooses to limit herself to three pieces of chocolate every five days.
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.
11. Vanessa has $60 to spend on rides at the State Fair. Each ride cost $4.
12. Adella bought a car for $10,000. One year later, the car was worth $8,000. A year after that, the car was worth $6,400. The pattern continued and the next year the car was worth $5,120.
13. Cami invested $6,000 dollars into an account that earns 10% interest each year.
14. How are arithmetic and geometric sequences similar?
15. How are arithmetic and geometric sequences different?

Go

Topic: Solving systems of linear equations.

Solve the system of equations.

15. $y = 2x - 10$ and $x - 4y = 5$

16. $x - 7y = 6$ *and* $-3x + 21y = -18$

17. $5x - 4y = 3$ and $6x + 4y = 30$

Need help? Check out these related videos

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