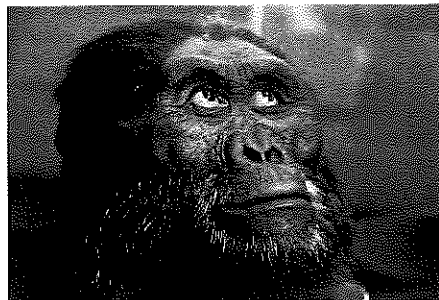


## 1.9 What Does It Mean?

### A Solidify Understanding Task



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<https://flic.kr/p/c6A1Wu>

Each of the tables below represents an arithmetic sequence.

Find the missing terms in the sequence, showing your method.

1.

$x$	1	2	3
$y$	5		11

2.

$x$	1	2	3	4	5
$y$	18				-10

3.

$x$	1	2	3	4	5	6	7
$y$	12						-6

4. Describe your method for finding the missing terms. Will the method always work? How do you know?

Here are a few more arithmetic sequences with missing terms. Complete each table, either using the method you developed previously or by finding a new method.

5.

$x$	1	2	3	4
$y$	50			86

6.

$x$	1	2	3	4	5	6
$y$	40					10

7.

$x$	1	2	3	4	5	6	7	8
$y$	-23							5

8. The missing terms in an arithmetic sequence are called “arithmetic means”. For example, in the problem above, you might say, “Find the 6 arithmetic means between -23 and 5”. Describe a method that will work to find arithmetic means and explain why this method works.

READY, SET, GO!

Name

Period

Date

**READY**

Topic: Comparing arithmetic and geometric sequences

1. How are arithmetic and geometric sequences similar?
2. How are they different?

**SET**

Topic: Finding missing terms in an Arithmetic sequence

Each of the tables below represents an arithmetic sequence. Find the missing terms in the sequence, showing your method.

**3. Table 1**

$x$	1	2	3
$y$	3		12

**4. Table 2**

$x$	$y$
1	2
2	
3	
4	26

**5. Table 3**

$x$	$y$
1	24
2	
3	6
4	

**6. Table 4**

$x$	$y$
1	16
2	
3	
4	4
5	

**GO**

Topic: Sequences

**Determine the recursive and explicit equations for each. (if the sequence is not arithmetic or geometric, identify it as neither and don't write the equations).**

7. 5, 9, 13, 17,... This sequence is: Arithmetic, Geometric, Neither

Recursive Equation: \_\_\_\_\_ Explicit Equation: \_\_\_\_\_

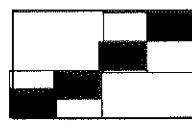
8. 60, 30, 0, -30, ... This sequence is: Arithmetic, Geometric, Neither

Recursive Equation: \_\_\_\_\_ Explicit Equation: \_\_\_\_\_

9. 60, 30, 15,  $\frac{15}{2}$ , ... This sequence is: Arithmetic, Geometric, Neither

Recursive Equation: \_\_\_\_\_ Explicit Equation: \_\_\_\_\_

10.



(The number of black tiles above) This sequence is: Arithmetic, Geometric, Neither

Recursive Equation: \_\_\_\_\_ Explicit Equation: \_\_\_\_\_

11. 4, 7, 12, 19, ... This sequence is: Arithmetic, Geometric, Neither

Recursive Equation: \_\_\_\_\_ Explicit Equation: \_\_\_\_\_