

8

Learning Activity Sheet for Mathematics

Quarter 1

Lesson

8

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Learning Activity Sheet for Mathematics Grade 8
Quarter 1: Lesson 8 (Week 8)
SY 2025-2026

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LEARNING ACTIVITY SHEET

Learning Area:	Mathematics	Quarter:	1
Lesson No.:	8	Date:	
Lesson Title/ Topic:	Finding the Rule of a Sequence		
Name:		Grade & Section:	

- I. Activity No. 3A:** Try This! (20 minutes)
- II. Objective(s):** At the end of the activity, you should be able to formulate the rule for finding the next term of a sequence.
- III. Materials Needed:** pen
- IV. Instructions:**

A. Determine whether the following sequence is FINITE or INFINITE.

- | | |
|----------------------|-------------------------|
| 1. 5, 15, 25, 35 | 6. 2, 6, 18, 54, ... |
| 2. 2, 4, 8, 16, ... | 7. 3, 6, 9, 12, ..., 30 |
| 3. 1, 9, 17, 25 | 8. 7, 7, 7, 7, 7 |
| 4. -9, -4, 1, 6, ... | 9. 16, 21, 26, 31 |
| 5. 2, 9, 16, 23 | 10. 24, 19, 14, 9, ... |

B. Determine the rule or nth term of the following sequences.

1. 1, 3, 5, 7, ...
2. 1, -3, -7, -11, ...
3. 5, 8, 11, 14, 17, ...
4. 4, 12, 36, 108, ...
5. 20, 10, 0, -10, ...

C. Given the rule or nth term, find the first four terms of the sequence.

1. $a_n = -2n + 8$
2. $a_n = 5n + 2$
3. $a_n = n + 20$
4. $a_n = 4(5)^{n-1}$
5. $a_n = 2(-3)^{n-1}$

LEARNING ACTIVITY SHEET

Learning Area:	Mathematics	Quarter:	1
Lesson No.:	8	Date:	
Lesson Title/ Topic:	Arithmetic Sequence		
Name:		Grade & Section:	

- I. Activity No. 3B:** Solve It! (15 minutes)
- II. Objective(s):** At the end of the activity, you should be able to solve for the n th term of an Arithmetic Sequence.
- III. Materials Needed:** pen
- IV. Instructions:** Analyze and solve each problem.

1. What is the 18th term of the arithmetic sequence 13, 16, 19, 22, ...?
2. Solve for the 12th term of the arithmetic sequence 99, 87, 75, 63, ...
3. Determine the 10 term of the arithmetic sequence if $a_1 = -15$ and $d = 6$.
4. If $a_1 = -1$ and $a_6 = 14$, what is the common difference?
5. After knee surgery, your trainer tells you to return to your jogging program slowly. He suggests jogging for 12 minutes each for the first week. Each week thereafter, he suggests you increase that time by 6 minutes. How many weeks will it be before you are up to jogging 60 minutes per day?

LEARNING ACTIVITY SHEET

Learning Area:	Mathematics	Quarter:	1
Lesson No.:	8	Date:	
Lesson Title/ Topic:	Geometric Sequence		
Name:		Grade & Section:	

- I. Activity No. 3C:** Complete Me! (10 minutes)
- II. Objective(s):** At the end of the activity, you should be able to solve for the n th term of a Geometric Sequence.
- III. Materials Needed:** pen
- IV. Instructions:** Complete the table below.

Given	a_1	r	Answer
1. 4, 12, 36, 108, ... ; 7 th term			
2. -3, 6, -12, 24, ... ; 10 th term			
3. 2187, 729, 243, 81, ... ; 11 th term			
4. -5, 5, -5, 5, ... ; 100 th term			
5. -2, -4, -8, -16, ... ; 9 th term			

V. Synthesis:

1. How did you arrive at your answers?

2. How did you find the activity? Can you share and describe your experience?
