

Lesson 71 : Formulating the Rule in Finding the Next Term in a Sequence

Week 6

Objective : Formulates the rule in Finding the next term in a sequence.

Value Focus : Alertness

Prerequisite Concepts and Skills :

- Skip counting
- Multiplying numbers
- Factors of a number / multiples of a number

Materials : drawings of patterns, picture cards

References : K to 12 Gr. 5 CG M5AL-III f-6, LM, Math for Life 6 pp. 107 - 112

Instructional Procedure

A. Preliminary Activities

1. Drill

- a. Game “ Snow Ball “

Have a drill on skip counting.

Say, “ Let us have skip counting by 3s from 3 to 30.” Then, point at one pupil to start.



The pupil who started will point to another pupil to continue and so on and so forth until you reach 30. Every pupil should listen to the previous answer to be able to give his/her own answer. The same procedure will be done to the following items. See to it that every pupil in class will recite.

- a. Skip count by 4 from 4 to 40.
- b. Skip count by 5 from 5 to 50.
- c. Skip count by 6 from 6 to 60.

Ask : Did you enjoy the activity? How were you able to follow the sequence of our skip counting? Emphasize the value of alertness.

- b. Do this exercise of patterns. Let the pupils fill in the missing shapes / numbers.

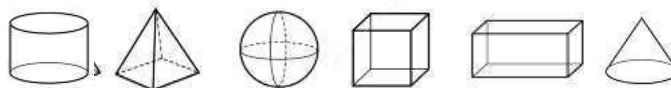


2. 
3. 
4. 12, 17, 22, __, 32, __, __
5. 1K, 2J, 3I, __, __, __, 7E

2. Review

Guessing Game

- Divide the class into 4 groups.
- Show them the picture cards. Let them guess the name of the figure.



3. Motivation

Have a game on identifying whether a number is odd or even.

Group the pupils into 2. As group 1 gives a number, Group 2 answers odd or even, then have them do it vice-versa.

Ask: Have you tried answering a number pattern with missing terms? Let them know that odd or even numbers are used in number patterns.

B. Developmental Activities

1. Presentation

Mrs. Reyes presented these number patterns to his Math class.

1, 3, 7, 15, 31, 63

Ask : What do you think is the rule/pattern used to find the 2nd term? 3rd? 4th? 5th? 6th?

$$1 \times 2 + 1 = 3$$

$$15 \times 2 + 1 = 31$$

$$3 \times 2 + 1 = 7$$

$$31 \times 2 + 1 = 63$$

$$7 \times 2 + 1 = 15$$

Patterns : $(\times 2 + 1)$ or $(+2, +4, +8, +16, +32)$

2. Performing the Activities

Group the pupils into 4. Let them answer items a to d by formulating/finding the rule in finding the next term in a sequence. Group 1 will answer a, Grp.2 for b, Grp. 3 for c, Grp. 4 for d. Let the pupils present their work on the board.

- a. 2, 5, 14, 41, 122 $(\times 3 - 1)$
- b. 1, 5, 13, 29, 61 $(\times 2 + 3)$
- c. 1, 12, 34, 78, 166 $(+5 \times 2)$
- d. 6, 9, 15, 27, 51 $(- 2 \times 2 + 1)$

3. Processing the Activities

How did you find the activity ? How were you able to find the answer to the number pattern?

Expected answers :

- Determine the order of numbers if it is ascending or descending.
- Find the difference between the consecutive terms.
- To find the rule of the next term, use the difference between terms.

4. Reinforcing the Concept and Skill

- a. Discuss the presentation under “ Explore and Discover “ in LM.
- b. For more practice, Have the pupils work on “ Get Moving “
- c. Ask the pupils to work on the exercises under “ Keep Moving “

5. Summarizing the Lesson

Lead the pupils to give the following generalization by asking :

How do we find / formulate the rules in finding the next term in a sequence?

- Determine the order of numbers if it is ascending or descending.
- Find the difference between the consecutive terms.

To find the rule of the next term, use the difference between terms.

6. Applying to New and Other Situations

Ask the pupils to solve problems under “Apply Your Skills” in LM.

C. Assessment

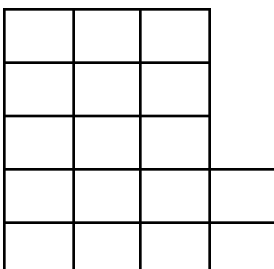
Write the rule used for each sequence, then write the missing number.

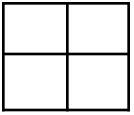
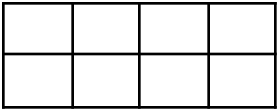
- 3, 7, 11, 15, _____ 19 (+4)
- 5, 9, 17, 33, _____ 65 (x 2 – 1)
- 20, 12, 8, 6, _____ 5 (÷ 2 + 2)
- 2, 8, 26, 80, _____ 242 (x 3 + 2)
- 36, 69, 135, 267, _____ 531 (x 2 – 3)

D. Home Activity

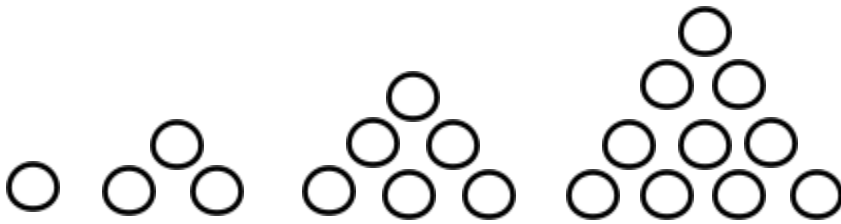
Remediation

- Study each sequence. Give the rule used then give the missing term.
 - 105, 100, _____, 75, _____
 - 6, 10, 15, 21, _____, _____
 - 3, 7, 19, _____, 163, _____
 - 4, 6, 10, _____, _____, 66
- Study the following sequence of figure. Then, draw the next figure and write the rule used to find the answer.
 -





b.



Enrichment

Study and follow the given directions.



1. Formulates 5 rule / pattern.
2. Write one example for each rule/pattern.

