STUDENT WORKSHEET

School	**: Junior High School**
Lesson	**: Mathematics**
Class/Semester	**: VIII/I**
Subject	**: Number Pattern**

Group :

Group Member:

1.
2.
3.

Basic Competence

3.1 Make generalizations from patterns in number sequences and object configuration sequences

4.1 Solve problems related to patterns in number sequences and object configuration sequences

Indicators of Competence Achievement

3.1.1 Determine the next term of the sequence of a number

4.1.1 Apply the rules of number patterns in solving real problems

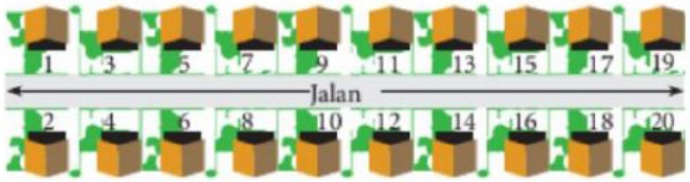
Learning Objectives

1. Given a real problem related to number patterns, students can able to determine the next term of a sequence pattern
2. Given a real problem related to number patterns, students can apply the rules of number patterns in solving problems

LET'S TRY!

PROBLEM 1

Look at the housing numbers in the picture below.



How to find the house number 100 and 101?

If you notice, the numbers from that housing are followed a certain pattern.

For example, the housing on the left are number 1, 3, 5, 7, 9, 11, ...

As for on the right are number 2, 4, 6, 8, 10, 12, 14, ...

The numbers form a sequence of numbers,the housing on the left are _____ numbers

While on the right are _____ numbers

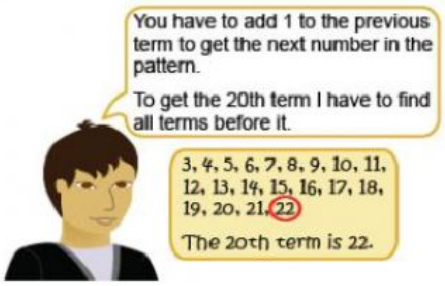
Then, from the information above can be found the house number 100 are on the _____ side and the house number 101 are on the _____side.

PROBLEM 2

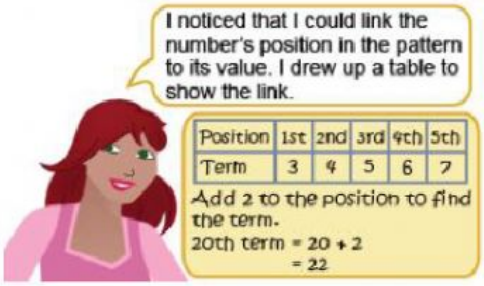
Look at the conversation between two people below about How to find the 20th term in the sequence 3, 4, 5, 6, 7, ...

Click the picture and listen to the sound

Does the sound TRUE or FALSE with the statement in the picture?



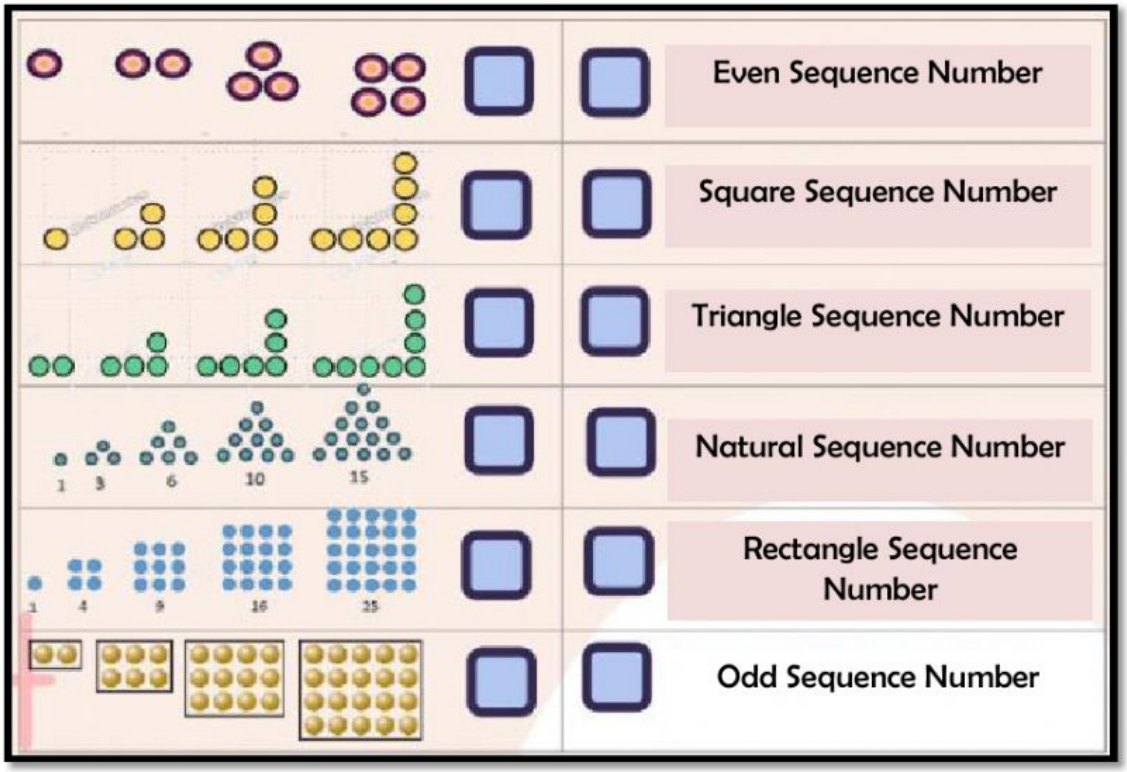
TRUE **FALSE**



TRUE **FALSE**

PROBLEM 3

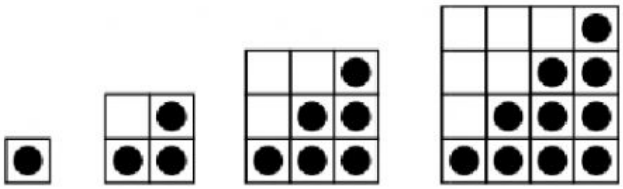
Match the following patterns with the name of the number sequence by drawing a line from the number name to the sequence.



Source Picture : https://www.liveworksheets.com/ak2114683ke

LET'S EXPLORE!

PROBLEM 4



Budi arranges the marbles in squares to form a pattern as the following picture. The number of marbles in the 7^{th} order is

1, 3, 6, 10, ____, ____, ____,

Describe the method you used to find the next three numbers!

PROBLEM 5

Uncle has the Apple tree in front of his house. Every week, the number of apples that fall always decreases, that is 24, 21, 18 and so on.

a. Based on the problem, Find the formula of the n^{th}-term

The n^{th} -term

n	.... n	.... n + ...
1	1 x .... = ...	24
2	2 x .... = ...	21
3	3 x .... = ...	18

b. Based on the problem, find the 50^{th} term!

50^{th} terms is = ...

How do you find the 50^{th} term?