

Class 9 Mathematics - Predicting What Comes Next: Exploring Sequences and Progressions

Name: _____

Date: _____

Advanced Worksheet 3

Questions

1. Find the first six terms of the recursive sequence: $u_1 = 2$, $u_n = u_{n-1} + 4$
2. Find the 15th term of the sequence.
3. Find the first five terms of: $u_1 = 3$, $u_n = 2u_{n-1}$
4. What type of sequence is generated in Question 3?
5. Find the 8th term of the sequence in Question 3.
6. Write an explicit rule for: 2, 6, 18, 54, ...

Answer Key

1. 2, 6, 10, 14, 18, 22
2. 58
3. 3, 6, 12, 24, 48
4. Geometric Progression
5. 384
6. $t_n = 2 \times 3^{n-1}$