

## Sequences & Series SS4: Recursive Formulas

For **ALL** of the given sequences,

A. State whether they are arithmetic, geometric or neither.

For the **Arithmetic and Geometric** sequences:

B. Write an explicit formula for the sequence.

C. Write a recursive formula for the sequence.

1. 3, 5, 7, 9, ...

2. 2, 4, 8, 16, ...

3. 3, 3.3, 3.63, 3.993, ...

4. 2, 4, 16, 256, ...

5. 7, 4, 1, -2, ...

6. 1, 11, 21, 31, ...

7.  $2, \frac{1}{2}, 2, \frac{1}{2}, \dots$

8.  $\frac{1}{2}, \frac{1}{4}, \frac{1}{8}, \frac{1}{16}, \dots$

9.  $\frac{1}{2}, \frac{2}{3}, \frac{3}{4}, \frac{4}{5}, \dots$

10. 1, 1, 1, 1, ...