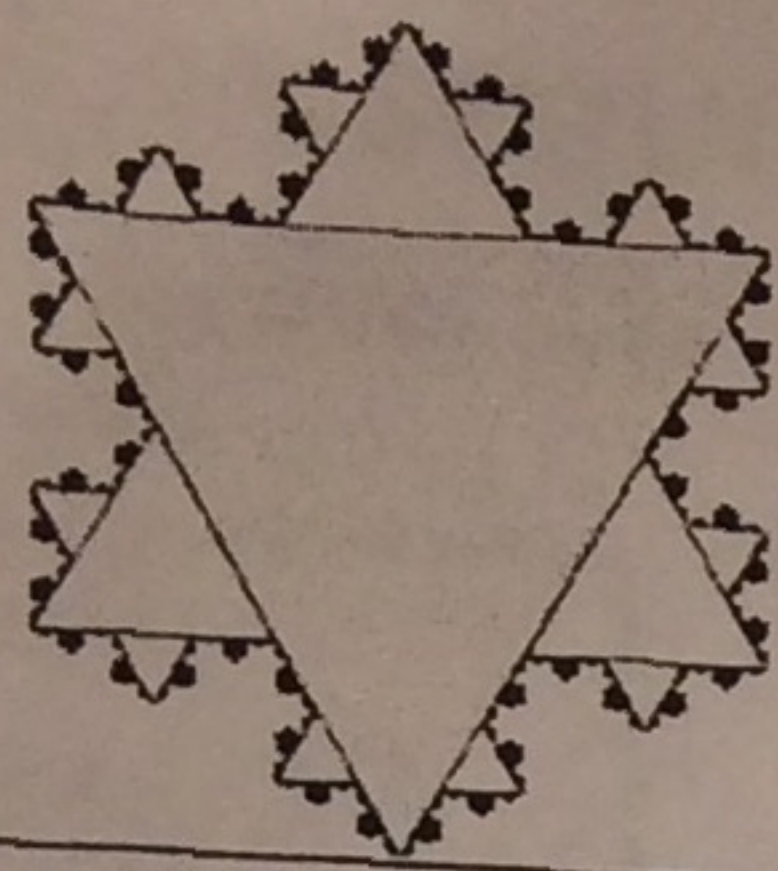


# Key

## Arithmetic and Geometric Scrambler Sheet



Directions:

Determine if the sequence is Arithmetic or Geometric, then find the EXPLICIT and RECURSIVE formulas for each (on the other sheet of paper), cut out, and then glue on the table below.

EXPLICIT FORMULA	SEQUENCE	TYPE	RECURSIVE FORMULA
$a_n = 7n - 11$	-4, 3, 10, 17, ... +7   +7   +7	Arithmetic	$a_1 = -4$ $a_n = a_{n-1} - 7$
$a_n = 175n - 174$	1, 176, 351, 526, ... 175   175   175	Arithmetic	$a_1 = 1$ $a_n = a_{n-1} + 175$
$a_n = 12(4)^{n-1}$	12, 48, 192, 768, ... $r = 4$	Geometric	$a_1 = 12$ $a_n = 4 \cdot a_{n-1}$
$a_n = 0.6n + 13.8$	14.4, 15, 15.6, 16.2, ... .6   .6   .6	Arithmetic	$a_1 = 14.4$ $a_n = 0.6 + a_{n-1}$
$a_n = 0.5(3)^{n-1}$	0.5, 1.5, 4.5, 13.5, ... $r = 3$	Geometric	$a_1 = 0.5$ $a_n = 3 \cdot a_{n-1}$
$a_n = 96 \left(\frac{1}{2}\right)^{n-1}$	96, 48, 24, 12, ... $r = \frac{1}{2}$	Geometric	$a_1 = 96$ $a_n = \frac{1}{2} \cdot a_{n-1}$
$a_n = 3 - 7n$	-4, -11, -18, -25 -7   -7	Arithmetic	$a_1 = -4$ $a_n = a_{n-1} + 7$
$a_n = 8(-5)^{n-1}$	8, -40, 200, -1000, ...		$a_1 = 8$ $a_n = -5 \cdot a_{n-1}$