

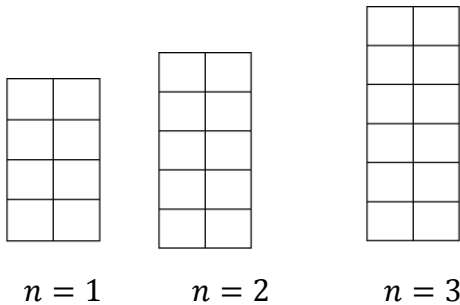
### 11.4 Recursive and Explicit Formulas

**For Problems 1-4, list the first five terms of each sequence.**

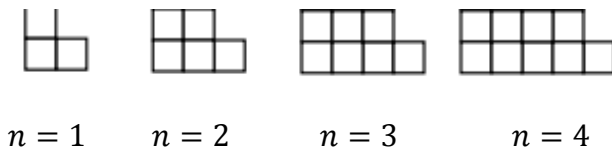
1) $a_n = a_{n-1} + 6$ , where $a_1 = 11$ for $n \geq 1$	2) $a_n = a_{n-1} \div 2$ , where $a_1 = 50$ for $n \geq 1$
3) $a_n = 2 * a_{n-1} + 8$ , where $a_1 = 1$ for $n \geq 1$	4) $a_n = 5 * a_{n-1} - 3$ , where $a_1 = 2$ for $n \geq 1$

**For Problems 5-7, write a recursive formula for each sequence given or described below.**

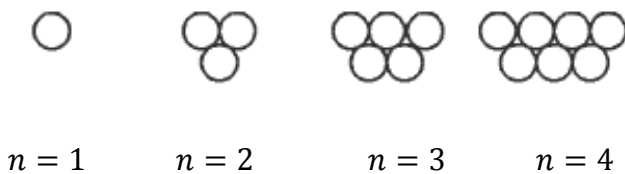
5)



6)



7)



For the problems below, identify if they are arithmetic or geometric, then write an explicit formula for the pattern given.

Recall:

Arithmetic	$a_n = a_0 + dn$ $d = \text{common difference}$
Geometric	$a_n = a_0(r)^{n-1}$ $r = \text{common ratio}$

8) The sequence 18, 25, 32, 39, ....

9) The sequence -7, -10.5, -15.75, -23.625, ...

10) The sequence 9, 14, 19, 24, ...

11) The sequence -30, -90, -180, -540, ...

12) The sequence -3, -23, -43, -63, ...

13) The sequence 35, 7, 1.4, .28, ...

14) The sequence 5, 12, 19, 26, ...