

HW 3-5**Sec 1****Geometric Sequences****Unit 3****Instructions:**

a) State the common Ratio b) Find the next three terms c) Write the recursive equation.

1.

x	1	2	3	4	5	6	Recursive Equation
f(x)	2	4	8				

2.

x	1	2	3	4	5	6	Recursive Equation
f(x)	5	25	125				

3.

x	3	4	5	6	7	8	Recursive Equation
f(x)	1000	200	40				

4.

x	-2	-1	0	1	2	3	Recursive Equation
f(x)	5	10	20				

5.

x	1	2	3	4	5	6	Recursive Equation
f(x)	-16	-4	-1				

6.

x	1	2	3	4	5	6	Recursive Equation
f(x)	-6	-12	-24				

7.

60, 30, 15, ...

8.

2, 8, 32, ...

9.

400, 100, 25, ...

10.

x	8	9	10	11	12	13	Recursive Equation
f(x)	-3	-12	-48				

11.

x	4	5	6	7	8	9	Recursive Equation
f(x)	$\frac{1}{2}$	$\frac{1}{6}$	$\frac{1}{18}$				

12.

x	-1	0	1	2	3	4	Recursive Equation
f(x)	$\frac{1}{4}$	$\frac{1}{16}$	$\frac{1}{64}$				

Given the recursive equation, create the original sequence with the first 5 terms.

13. $f(x) = f(x-1) + 2$
 $f(1) = 5$

14. $f(x) = f(x-1) \cdot 2$
 $f(1) = 3$

15. $f(x) = f(x-1) - 4$
 $f(1) = 0$

16. $f(x) = f(x-1) \cdot \frac{1}{3}$
 $f(1) = 6$