Sequences Homework Day 1 **Name**_____

Determine whether each sequence is an arithmetic sequence.
If so, find the common difference and the next three terms.

1) $-10, -7, -4, -1, \ldots$

2) $0, 1.5, 3, 4.5, \ldots$

3) $5, 8, 12, 17, \ldots$

4) $-2, -20, -200, -2000, \ldots$

Determine whether each sequence is a geometric sequence.
If so, find the common ratio and the next three terms.

5) -10, 40, -160, 640, …

6) 1, 6, 11, 16, …

7) $\frac{9}{4}, \frac{3}{2}, 1, \frac{2}{3}$

8) 2, 10, 50, 250…

Determine whether the sequence is arithmetic or geometric. Then find the recursive formula for each sequence.

9) 1, 3, 5, 7…

10) 1600, 400, $100, 25$…

11) 11, 33, 55, 77…

12) 2, 10, 50, 250…

Exam Review: Equations and Inequalities

Objective: Solve equations with distributive property

13) $-16 + 5\mathrm{n} = -7(-6 + 8\mathrm{n}) + 3$

14) $-11 + 10(\mathrm{p} + 10) = 4 - 5(2\mathrm{p} + 11)$

Objective: Solve for a Variable

15) Solve for *d*: $Q = \frac{c+d}{2}$

16) Solve for y: $5x + 3y = 1$

Objective: Solve and graph inequalities

17) Solve and graph: $-2x < 3(x - 5)$

18) Solve and graph: $2(1 - x) + 5 \leq 3(2x - 1)$