Chapter 11 Review C.
Assignment # _____ You must do your work on a separate piece of paper for credit.

1. Write a recursive and explicit rule for the sequence: 3, 6, 13, 24, 39

2. $\sum_{n=1}^{\infty} \frac{3}{4}(2)^{n-1}$

3. $\sum_{n=5}^{10} \frac{3}{4}(2)^{n-1}$

4. $\sum_{n=401}^{520} n(2n-1)+5$

5. Write the explicit rule for the sequence: $\frac{7}{3}, -\frac{9}{6}, 1, -\frac{13}{18}, \frac{15}{27}, \ldots$

6. Graph: $a_n = 2n-1$

7. Write the explicit rule for the geometric sequence if $a_2 = -6; a_4 = -54$

8. Find n if $\sum_{k=0}^{n} 16(2)^{k+1} = 8160$

9. Find n if 8 + 20 + 32 + 44 + …. = 1204

10. Write in summation notation: -90 + 30 – 10 + 10/3 + …. Then find the sum of the series.

11. Write the repeating decimal as a fraction: 12. 67676767….

12. A ball is dropped from a height of 12 ft. Each time it hits the ground, it bounces to 90% of its previous height. Find the total distance traveled by the ball. On which bounce will the ball have traveled 70% of its distance?

13. Write the explicit rule for 6, -10, 14, -18, 22, -26, ...
Find the 20th term.

14. Write the explicit rule for -3, 12, -48, 192, -768, ...

15. Write the explicit rule for an arithmetic sequence: $a_2 = -20$; $a_4 = -5$

16. Find the sum of the series: 900 – 300 + 100 - ….
b. Find the sum of the first 7 terms of the series (calculator practice before the test)
c. Find the sum of the first 6 terms of the series (calculator practice before the test)

17. $\sum_{n=1}^{10} -4n-1 = \sum_{n=32}^{?} ?$

18. Find the sum of all positive 4 digit integers not divisible by 7

19. -9, -21, -33, -45, … If the nth term is -3009. Find n.

20. 8 + 24 + 72 + 216 + …., … If the nth term is52,488, find n.