Given that f(n) = 8n – 3 and g(n) = 3n – 10, evaluate the following functions with the indicated values.

1. f(5) = 2. g(5) = 3. f(-4) = 4. g(-4) =

5. f(0)= 6. g(0)= 7.f(1)= 8. g(1)

Determine if the sequence is arithmetic. If it is, find the common difference.

9. 35, 32, 29…. 10. 9, 14, 19, …..

11. -34, -54, -64, …. 12. -30, -20, -10…

Given the first term and the common difference of an arithmetic sequence find the first five terms.

13. a1 = 28, d = 5 14. a1 = -8, d = 10

15. a1 = -4, d = -5 16. a1 = 2, d = -10

Given the explicit formula for an arithmetic sequence find the term named in the problem.

17. an = - 11 + 8n Find the 20th term 18. an = 20 - 20n Find the 47th term.

19. an = - 10 + 12n Find the 15th term 20. an = 15 - 10n Find the 28th term.

Given the sequence: **a)** write the explicit formula **and b)** write the recursive formula. SHOW ALL WORK!!

21. -7, -9, -11, -13…. 22. – 3, -23, -43….

a)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ a)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

b)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ b)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Extra Credit

Write the explicit formula for the arithmetic sequence to solve the following real life situation. Show all work and answer in a complete sentence.

Edgar is getting better at math. On his first test he scores 50 points, then he scores, 53, 56, 59 and 62 on his next 4 tests and his scores increase arithmetically thereafter. If he takes 17 tests, how many points will he earn on the last test?