ALGEBRA I // MODULE 1

SEQUENCES – 1.4

1.4

READY, SET, GO!   Name   Period   Date

READY

Evaluate the given equation for the indicated function values.

1. $f(n) = 5n + 8$
$f(4) =$

$f(-2) =$

2. $f(n) = -2n + 1$
$f(10) =$

$f(-1) =$

3. $f(n) = 6n - 3$
$f(-5) =$

$f(0) =$

4. $f(n) = -n$
$f(9) =$

$f(-11) =$

5. $f(n) = 5^n$
$f(2) =$

$f(3) =$

6. $f(n) = 3^n$
$f(4) =$

$f(1) =$

7. $f(n) = 10^n$
$f(6) =$

$f(0) =$

8. $f(n) = 2^n$
$f(0) =$

$f(5) =$

SET

Find the next 3 terms in each sequence. Identify the constant difference. Write a recursive function and an explicit function for each sequence. Circle where you see the common difference in both functions. (The first number is the 1st term, not the 0th term).

9. A)   3 , 8 , 13 , 18 , 23 ,____,____,_____, …   B) Common Difference: _____

   C)   Recursive Function: _____   D) Explicit
                                                             Function:_____

10. A) 11 , 9 , 7 , 5 , 3 ,___,____,_____, …   B) Common Difference: _____

   C)   Recursive Function: _____   D) Explicit
                                                             Function:_____

11. A) 3 , 1.5 , 0 , -1.5 , -3 ,_____,____,_____, …   B) Common Difference: _____

   C)   Recursive Function: _____   D) Explicit
                                                             Function:_____

mathematics
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GO

Olaf is a mountain climber. The graph shows Olaf's location on the mountain beginning at noon. Use the information in the graph to answer the following questions.
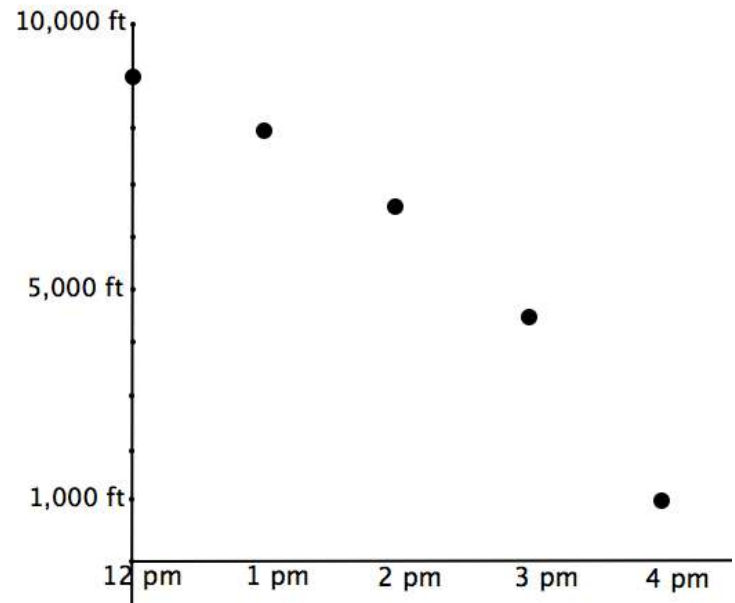
12. What was Olaf's elevation at noon?

13. What was his elevation at 2 pm?

14. How many feet had Olaf descended from noon until 2 pm?

15. Olaf reached the base camp at 4 pm. What is the elevation of the base camp?

16. During which hour was Olaf descending the mountain the fastest? Explain how you know.

17. Is the value of $f(n)$ the time or the elevation?