Alg 2

Unit 1 Review

What is the n^{th} term in the arithmetic sequence below?

① $2 + 8 + 14 + 20 + 26 \ldots$

A) $x + 1$
B) $2x + 4$
C) $6x - 4$
D) $4 - 2x$

② Which function will generate the n^{th} term of the sequence?

3, 5, 11, 21, 35 ...

A) $f(n) = 3n^2 - 7n + 7$
B) $f(n) = 2n^2 + 0n + 3$
C) $f(n) =$ [redacted] $8n - 9$
D) $f(n) = 2n^2 - 6n + 7$

③ Match the follow sequences to the right function.

A) $-12, -11.75, -11.5, -11.25$	1) $f(n) = 256 \times 2^{(1-n)}$
B) $1, -2, 3, -4, 5, -6$	2) $f(n) = -12.25 + .25n$
C) $256, 128, 64, 32, 16$	3) $f(n) = n(-1)^{n-1}$

④ Which function will generate the follow sequence?

A) $f(n) = \frac{1-2n^2}{2}$
B) $f(n) = \frac{n^2-2}{2}$
C) $f(n) = \frac{(n+2)^2}{2}$
D) $f(n) = \frac{n-2}{2}$

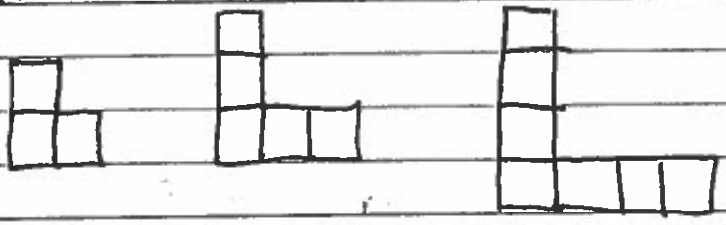
(5) Write a recursive function for the sequence below.

12, 8, 4, 0, -4 ...

(6) Write a recursive function for the sequence below.

3, 6, 12, 24, 48 ...

(7) Write a function for the first 3 figures shown.



(8) The given sequence is increasing. If the pattern continues what are the 7th, 8th, 23rd terms?

2, 8, 14, 20, 26 ...

7th: _____ 8th: _____ 23rd: _____

(9) If the function for a sequence is $f(n) = .57 - .06n$ where $n \geq 1$. Which is an equivalent recursive definition for the sequence?

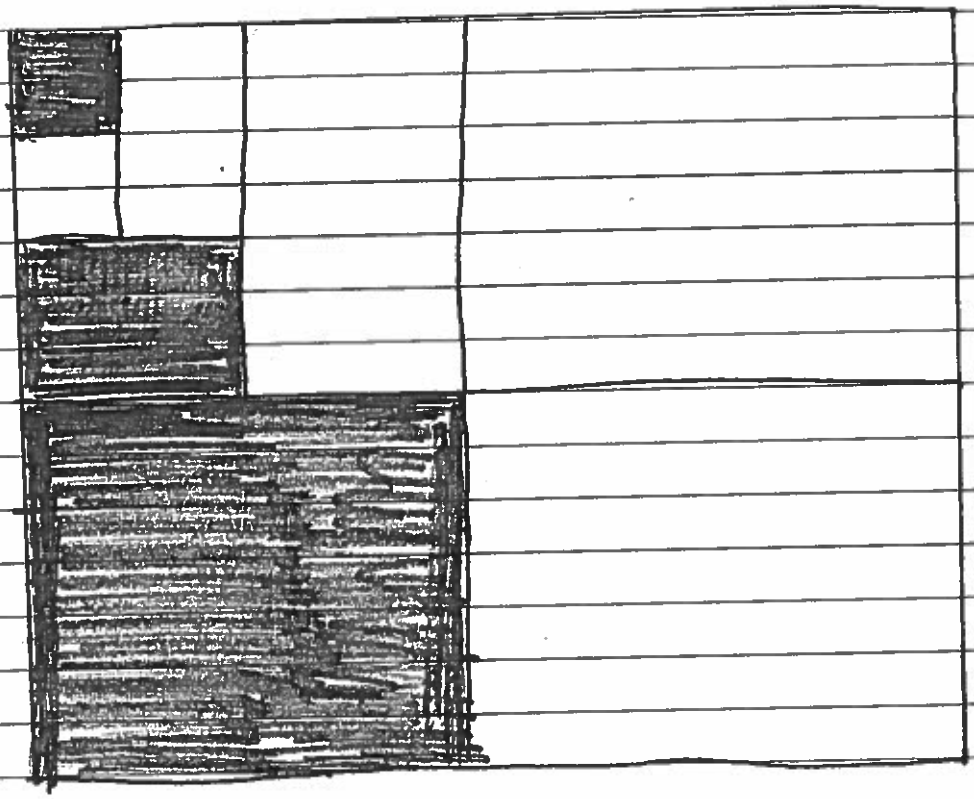
A) $f(1) = .57$ $\quad f(n+1) = f(n) - .06$ for $n \geq 1$

B) $f(1) = .51$ $\quad f(n+1) = f(n) - .06$ for $n \geq 1$

C) $f(1) = .57$ $\quad f(n+1) = f(n) - .51$ for $n \geq 1$

D) $f(1) = .51$ $\quad f(n+1) = f(n) - .51$ for $n \geq 1$

(10)



Find the sum of the given area that is shaded.