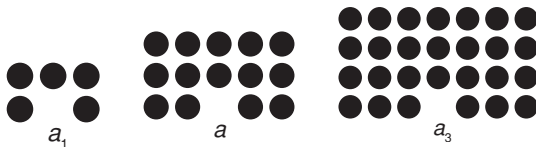Name _____ Date _____ Class _____

Quiz
Lessons 12-1 to 12-3

Select the best answer.

1. What are the first 4 terms of the
sequence where $a_1 = -2$ and
$a_n = 5 - 2a_{n-1}$?

  A $-2, 9, -16, 23$ **C** $-2, 9, -13, 31$

  B $-2, 7, -9, 11$

2. Ticket sales for the first 5 nights of a
play form the sequence 400, 399, 396,
387, 360,… Find an explicit rule for the
number of tickets sold on the nth night.

  F $a_n = a_{n-1} - 3^{(n-1)}$

  G $a_n = a_n - 3^{(n-1)}$

  H $a_n = a_n - 3^n$

3. How many dots will appear in the next
2 figures of the dot pattern below?

  A 40, 53

  B 44, 65

  C 65, 90

4. A coin worth $50 increases in value by
8% each year. How much is the coin
worth after 17 years?

  F $118   **H** $186

  G $185

5. Which is summation notation for the
series $\dfrac{2}{4} + \dfrac{4}{6} + \dfrac{6}{8} + \dfrac{8}{10}$?

  A $\displaystyle\sum_{k=1}^{4} \dfrac{2k}{2k+2}$

  B $\displaystyle\sum_{k=1}^{4} \dfrac{k+1}{k+3}$

  C $\displaystyle\sum_{k=1}^{4} \dfrac{3k-2}{2k+2}$

6. A computer virus infects an e-mail
account and sends itself to 4
new accounts. The next day, each of
those accounts sends the virus to 4
other accounts, and so on. How many
accounts are infected after 5 days?

  F 341   **H** 1365

  G 1024

7. Evaluate $\displaystyle\sum_{k=4}^{9} k^2$.

  A 190   **C** 371

  B 271

8. The first row of a knitting design has 20
stitches and each additional row has 6
stitches more than the row before it.
How many stitches are in the 12th row?

  F 80   **H** 92

  G 86

9. What is the 38th term of the arithmetic
sequence where $a_4 = 8.5$ and $a_7 = 13$?

  A 59.5   **C** 65.5

  B 61

10. Laurent's new job grants him 100 stock
options each year. Every year, he is
given 20 more than the year before.
How many stock options will Laurent
have after 8 years on the job?

  F 980   **H** 1520

  G 1360

11. Evaluate $\displaystyle\sum_{k=1}^{11} (1 - 3k)$.

  A -374 **C** -187

  B -198

12. Evaluate $\displaystyle\sum_{k=3}^{9} - 9$.

  F -63 **H** -45

  G -54

Answer Key Algebra 2

CHAPTER 12

Section Quiz Lessons 12-1 Through 12-3

1. C
2. F
3. B
4. G
5. A
6. H

7. B
8. G
9. A
10. G
11. C
12. F