Station 2

1. Write an explicit formula for the sequence $1, \frac{1}{4}, \frac{1}{9}, \frac{1}{16} \ldots$ Then find a_{14}.

A $a_n = a_{n-1} - \frac{1}{2n}; \frac{1}{196}$

B $a_n = \frac{a_{n+1}}{n^2}; \frac{1}{196}$

C $a_n = \frac{1}{n+3}; \frac{1}{196}$

D $a_n = \frac{1}{n^2}; \frac{1}{196}$

2. Find the 50th term of the sequence 5, –2, –9, –16, ...

A –352
B –343
C –338
D –331

3. Use summation notation to write the series 49 + 54 + 59 + ... for 14 terms.

A $\sum_{n=1}^{14}(49 + 5n)$

B $\sum_{n=1}^{13}(44 + 5n)$

C $\sum_{n=1}^{14}(44 + 5n)$

D $\sum_{n=1}^{44}(49 + 5n)$

4. Viola makes gift baskets for Valentine's Day. She has 13 baskets left over from last year, and she plans to make 12 more each day. If there are 15 work days until the day she begins to sell the baskets, how many baskets will she have to sell?

A 193 baskets
B 156 baskets
C 205 baskets
D 181 baskets

5. Write a recursive formula for the sequence 8, 10, 12, 14, 16, ... Then find the next term.

A $a_n = a_{n-1} + 2$, where $a_1 = 8$; 18

B $a_n = a_{n-1} + 2$, where $a_1 = 18$; 8

C $a_n = a_{n-1} - 2$, where $a_1 = 8$; 18

D $a_n = a_{n-1} - 2$, where $a_1 = 2$; –2