

Algebra 2B
Practice Quiz on 9-2 & 9-4

Name: _____

Date: _____ Hr: _____

SHOW ALL WORK

For #1-2, a.) determine whether the sequence is arithmetic. B.) If so, identify the common difference.

1. 2, 4, 8, 16, ...

1. a.) _____

b.) _____

2. 1, 5, 9, 13, 17, ...

2. a.) _____

b.) _____

For #3-4, find the 32nd term of each sequence.

3. 34, 37, 40, 43, ...

3. _____

4. 9, 4, -1, -6, -11, ...

4. _____

For #5-7, find the missing term or terms in each arithmetic sequence.

5. -15, _____, 1, ...

5. _____

6. 5, _____, _____, 62, ...

6. _____

7. 660, _____, _____, _____, 744, ...

7. _____

For #8-9, given two terms in an arithmetic sequence, find the term named in the problem.

8. $a_{12} = -38$ and $a_{38} = -194$
Find a_{29} .

8. _____

9. $a_{16} = 137$ and $a_{38} = 313$
Find a_{25} .

9. _____

For #10-11, write a.) an explicit and b.) a recursive formula for each sequence.

10. -4, -8, -12, -16, -20, ...

10. a.) _____

b.) _____

11. $0, \frac{1}{8}, \frac{1}{4}, \frac{3}{8}, \dots$

11. a.) _____

b.) _____

For #12-13, find the sum of each arithmetic series.

12. $2 + 4 + 6 + \dots + 100$

12. _____

13. $1 + 4 + 7 + \dots + 31$

13. _____

14. In a 20 row theater, the number of seats in a row increases by three with each successive row. The first row has 18 seats.

a. How many seats are in the last row?

b. How many seats are there altogether?

14. a.) _____

b.) _____

For #15-16, write each arithmetic series in summation notation.

15. $7 + 11 + 15 + \dots + 203 + 207$

15. _____

16. $-5 + 2 + 9 + 16 + \dots + 261 + 268$

16. _____

For #17-19, find the sum of each finite series.

17. $\sum_{n=1}^{40} (3n - 8)$

17. _____

18. $\sum_{n=1}^4 n^3$

18. _____

19. $\sum_{n=0}^{100} (-1)^n$

19. _____

