

Nam3: _____

Exercise 7.1 (part 1)

1. Which sequences are arithmetic? For each arithmetic sequence, determine the value of t_1 , d , and the next three terms

a) 16, 32, 48, 64, 80, ...

b) 2, 4, 8, 16, 32, ...

c) -4, -7, -10, -13, -16, ...

d) 3, 0, -3, -6, -9, ...

2. Write the first four terms of the arithmetic sequence that has the values shown.

a) $t_1 = 5$ and $d = 3$

b) $t_1 = -1$ and $d = -4$

c) $t_1 = 4$ and $d = \frac{1}{5}$

d) $t_1 = 1,25$ and $d = -0,25$

3. Given the sequence defined by $t_n = 3n + 8$. Determine each term

a) t_1

b) t_7

c) t_{14}

4. For each arithmetic sequence determine the values of t_1 , and d , then find the indicated terms.

a) ■, ■, ■, 19, 23

b) ■, ■, $3, \frac{3}{2}$

5. Determines the rank of each term to complete the statement.

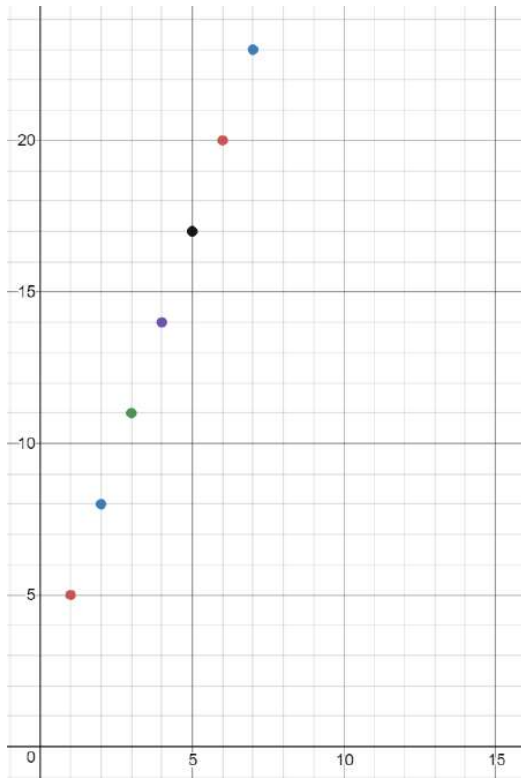
a) 170 is the ■th term of $-4, 2, 8, \dots$

b) -14 is the ■th term of $\frac{11}{5}, 2, \frac{9}{5}, \dots$

c) 97 is the ■th term of $-3, 1, 5, \dots$

d) -10 is the ■th term of $14, 12, 5, 11, \dots$

6. Given the graph of the arithmetic sequence.



a) What are the first 6 terms of the sequence?

b) Determine the general term of the sequence.

c) Determine the value of t_{50} and t_{100} .

7. Determine the first term of the arithmetic sequence given that the 16th term is 110 and the common difference is 7.

8. The first term of the arithmetic sequence is $5y$ and the common difference is $-3y$. Write the equation t_n and find t_{15} .