Lesson 1.1: Arithmetic Sequences

Complete the *Practice* below. When you have completed all the questions for *Lesson 1.1 Practice – II* with your best work, mark your work by first comparing your answers to the solutions provided in the *Appendix*. Then, apply the rubric found at the beginning of the *Workbook*.
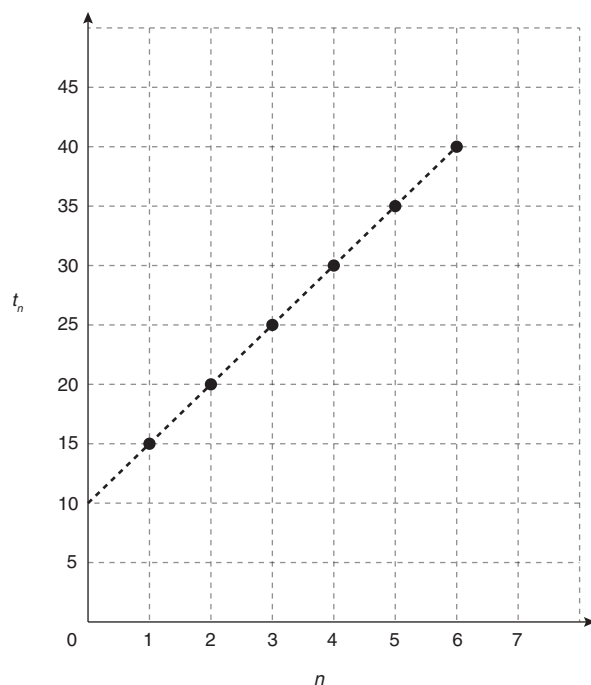
Practice – II

1.   Given $t_5 = 64$ and $t_9 = 112$ of an arithmetic sequence, determine the values of the common difference, d, and the first term, t_1.

2. Kyle is saving money to buy a new electric guitar. He had $225.00 saved by the fourth week and $360.00 by the 13th week.

    a. Assuming his savings amount increases in an arithmetic sequence, write the general formula that relates the amount of money saved to the number of weeks of saving. Be sure to define the variables.

    b. The electric guitar Kyle is looking to buy costs $1 250.00. For how many weeks does Kyle need to save to achieve this goal?

c. What assumption is made in order to answer part b.?

_____

_____

d. How much money did Kyle have in his savings account before he started saving for the guitar?

_____

_____

3. Use the graph below to answer the following question.

a. List the first five terms of the sequence in the table.

n	t_n
1	
2	
3	
4	
5	

b.   Write the general term of this sequence.

c.   Calculate the slope of the graph. How is it related to the general term?

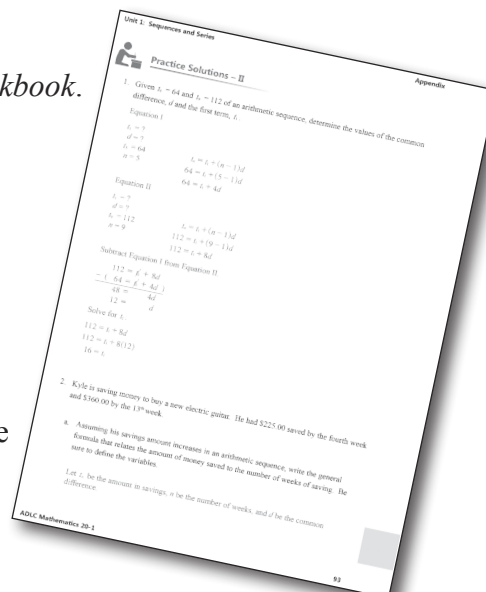d.   Determine the *y*-intercept of the graph. How is it related to the general term?

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_____

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Mark your work for *Lesson 1.1 Practice – II* using the solutions provided in the *Appendix*. Then, apply the rubric found at the beginning of the *Workbook*.

Transfer your self-assessed mark to the front cover of the *Workbook*.

My self-assessed mark on *Lesson 1.1 Practice – II* is _____.

Reflect on your understanding of the concepts addressed in the *Practice* exercises in the table provided.

Question Number	Got it!	Almost there…	Need to retry or ask for help.	Similar questions from Pre-Calculus 11
1				p. 16 #3, 4ac
2				p. 18 #16, 19, 21
3				p. 17 #7

You may proceed to *Explore Your Understanding Assignment* on the next page of this *Workbook*.

Note: Before you complete *Explore Your Understanding*, you may review your skills and get more practice by completing the following problems in *Pre-Calculus 11*.

- Page 16 #1, 2ac, 3, 4ac, 5bd, 7, 8, 10, 11, 16, 19, and 21

Check your work in *Enhance Your Understanding*.