Practice Assessment

Practice provides practice and allows you to self-reflect on your conceptual understanding of the *Lesson* skills. You will mark your work for *Practice* in each *Workbook* according to the following rubric.

Category	Strategy and Procedures	Response to Questions
	I have…	*I have…*
4	• used efficient and effective strategies to solve the problem(s)	• provided detailed explanations and followed directions appropriately to complete all questions
3	• used effective strategies to solve the problem(s)	• provided clear explanations and followed directions adequately to complete most questions
2	• used effective strategies inconsistently to solve the problem(s)	• provided incomplete explanations and followed some directions to complete a few questions
1	• used effective strategies to solve the problem(s)	• provided incomplete explanations and have not followed directions to complete some questions

Complete *Practice* exercises using your best work, showing all relevant steps needed to arrive at your solution. Refer to the *Module* to review lesson instructions. Contact your teacher for assistance or clarification as needed, or to investigate the topic further.

Check and correct your work using the solutions provided in *Appendix* in the *Module*.

Practice is worth 8 marks; your mark can help you gauge your understanding of *Lesson* material.

After you have assessed your work, reflect on your understanding of the concepts addressed in the *Practice* exercises in the table provided.

Lesson 1.1: Arithmetic Sequences

Complete the *Practice* below. When you have completed all the questions for *Lesson 1.1 Practice – I* 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 – I

1. Identify the arithmetic sequence(s) below. For the arithmetic sequence(s), indicate the value of t_1, d, and the simplified general term, t_n. For any sequence that is not arithmetic, explain why not.

   a. $a, a + w, a + 2w, a + 3w, \ldots$

   b. 78, 75, 71, 66, 61, …

2. Given $t_1 = 652$ and $d = -3$, list the first four terms in the arithmetic sequence.

3. Determine the number of terms, *n*, in the arithmetic sequence $91, 67, 43, ..., -245$.

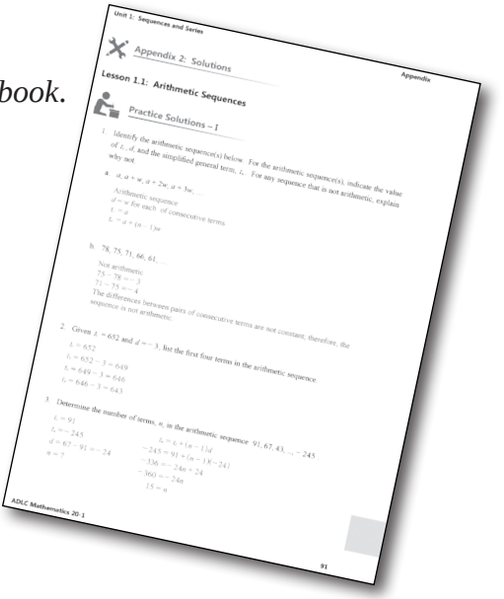
4. Does an arithmetic sequence with $t_1 = 24$ and $d = 13$, contain the term 57?

5. The first three terms of an arithmetic sequence are $5y + 3$, $7y - 6$, and $6y$. Determine the numerical values of the first three terms in the sequence, and then determine the value of *d*.

Mark your work for *Lesson 1.1 Practice – I* 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 – I* is _____.


Unit 1: Sequences and Series

Appendix 2: Solutions

Appendix

Lesson 1.1: Arithmetic Sequences

Practice Solutions – I

1. Identify the arithmetic sequence(s) below. For the arithmetic sequence(s), indicate the value of t_1, d, and the simplified general term, t_n. For any sequence that is not arithmetic, explain why not.

a. $a, a+w, a+2w, a+3w, \ldots$

Arithmetic sequence

$d = w$ for each of consecutive terms

$t_1 = a$

$t_n = a + (n-1)w$

b. 78, 75, 71, 66, 61, ...

Not arithmetic

$75 - 78 = -3$

$71 - 75 = -4$

The differences between pairs of consecutive terms are not constant; therefore, the sequence is not arithmetic.

2. Given $t_1 = 652$ and $d = -3$, list the first four terms in the arithmetic sequence.

$t_1 = 652$

$t_2 = 652 - 3 = 649$

$t_3 = 649 - 3 = 646$

$t_4 = 646 - 3 = 643$

3. Determine the number of terms, n, in the arithmetic sequence 91, 67, 43, ..., −245.

$t_1 = 91$

$t_n = -245$

$d = 67 - 91 = -24$

$n = ?$

$t_n = t_1 + (n-1)d$

$-245 = 91 + (n-1)(-24)$

$-336 = -24n + 24$

$-360 = -24n$

$15 = n$

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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 #1
2				p.16 #2ac
3				p.16 #5bd
4				p.17 #8
5				p.17 #10, 11

Please return to *Lesson 1.1* to continue your work in *Unit 1: Sequences and Series*.