

Algebra 2 Unit 1: Sequences and Functions

Lessons 1–7: Sequences

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| Explore, Play, and Discuss | <ul style="list-style-type: none"> I can give an example of a sequence. | |
| | <p>Activity Suggestions:</p> <ul style="list-style-type: none"> Lesson 1: Students respond to questions in an online or paper journal, or talk them over with someone at home. Consider providing a worked example to illustrate the important aspects. Activity 2.1: Students respond to questions in an online or paper journal, or talk them over with someone at home. | <p>Assessment Suggestions:</p> <ul style="list-style-type: none"> Check Your Readiness Assessment: Administer items 1-3, 5 within the first day or two of this section. Use the guidance provided with each problem to adjust instruction so that students can access the math in the unit. Lesson 1 cool-down |

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| Deep Dive | <ul style="list-style-type: none"> I can explain what it means for a sequence to be arithmetic or geometric. | |
| | <p>Activity Suggestions:</p> <ul style="list-style-type: none"> Activity 2.2: sync discussion Lesson 3: sync discussion | <p>Assessment Suggestions:</p> <ul style="list-style-type: none"> Lesson 2 cool-down Lesson 3 cool-down |

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| Synthesize and Apply | <ul style="list-style-type: none"> I can find missing terms in a geometric sequence. I can define arithmetic and geometric sequences recursively using function notation. | |
| | <p>Activity Suggestions:</p> <ul style="list-style-type: none"> Activity 2.3: Students respond to questions in an online or paper journal, or talk them over with someone at home. Lesson 5: Students respond to questions in an online or paper journal, or talk them over with someone at home. | <p>Assessment Suggestions:</p> <ul style="list-style-type: none"> Lesson 5 cool-down End-of-Unit Assessment questions 1, 4–6 Revisions to previous assessment prompts Students use learning targets to decide what additional practice they need. |

Ongoing Practice

- Assign one or more of the distributed practice problem sets from Lessons 1–7 to be completed over the time period that the section is being worked on.
- These could also be lagging, so that students are working on practice problems from the previous section or unit during this section or unit.
- Specify which problems students should submit, or let them choose.
- Note: Several existing platforms already have IM’s practice problems loaded so that students can complete and submit them online. Some can be autoscored.

Anytime Resources

- Teach and encourage students to study the lesson summaries (at the end of every lesson) and refer back to them.
- Emphasize the Are You Ready for More opportunities to students who want to explore the topics in more depth.
- Use the spreadsheet exploration in Lesson 4.
- Use the additional practice in Lesson 6.

Lessons 8-11: What’s the Equation?

Explore, Play, and Discuss

- I can explain why different equations can represent the same sequence.
- I can represent situations with sequences.

Activity Suggestions:

- Lesson 8: Students respond to questions in an online or paper journal, or talk them over with someone at home. Consider providing a worked example to illustrate the important aspects.
- Activity 9.3: Students respond to questions in an online or paper journal, or talk them over with someone at home. Consider providing a worked example to illustrate the important aspects.

Assessment Suggestions:

- Check Your Readiness assessment: Administer items 4, 6 within the first day or two of this section. Use the guidance provided with each problem to adjust instruction so that students can access the math in the unit.
- Lesson 8 cool-down

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| Deep Dive | <ul style="list-style-type: none"> I can define a sequence using an equation. | |
| | <p>Activity Suggestions:</p> <ul style="list-style-type: none"> ➤ Activity 9.1: Sync discussion ➤ Lesson 10: Sync discussion | <p>Assessment Suggestions:</p> <ul style="list-style-type: none"> ➤ Lesson 10 cool-down ➤ Lesson 9 cool-down |

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| Synthesize and Apply | <ul style="list-style-type: none"> I can represent situations with sequences. I can determine the sum of a sequence representing a situation. | |
| | <p>Activity Suggestions:</p> <ul style="list-style-type: none"> ➤ Activity 9.2: Students respond to questions in an online or paper journal, or talk them over with someone at home. ➤ Lesson 11: Students respond to questions in an online or paper journal, or talk them over with someone at home. | <p>Assessment Suggestions:</p> <ul style="list-style-type: none"> ➤ Lesson 11 cool-down ➤ End of Unit Assessment questions 2, 3, 7 ➤ Revisions to previous assessment prompts ➤ Students use learning targets to decide what additional practice they need. |

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| Ongoing Practice | <ul style="list-style-type: none"> Assign one or more of the distributed practice problem sets from Lessons 8–11 to be completed over the time period that the section is being worked on. These could also be lagging, so that students are working on practice problems from the previous section or unit during this section or unit. Specify which problems students should submit, or let them choose. Note: Several existing platforms already have IM’s practice problems loaded so that students can complete and submit them online. Some can be autoscored. |
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Anytime Resources

- Delve into one of the modeling prompts (1 or 2).
- Teach and encourage students to study the lesson summaries (at the end of every lesson) and refer back to them.
- Emphasize the Are You Ready for More opportunities to students who want to explore the topics in more depth.