

Plan for Algebra 2 Unit 4: Exponential Functions and Equations

Relevant Unit(s) to review: Algebra 1 Unit 5: Introduction to Exponential Functions

Essential prior concepts to engage with this unit	<ul style="list-style-type: none">• Exponential functions• Rational exponents
Brief narrative of approach	<p>This unit builds from the previous units in this course. If the Check Your Readiness shows that students are not fluent with moving between descriptions, graphs, and equations of exponential functions, there is an embedded optional lesson addressing that topic. It is not necessary to pre-teach any topics.</p> <p>Additional resources on exponential functions can be found in Algebra 1 Unit 5 and may be another source of support for this unit.</p>

Lessons to Add	Lessons to Remove or Modify
<p>The optional lesson and previous units of this course should provide enough support for students to engage in the material for this unit. If the formative assessments provided in this unit indicate that additional resources are needed, consider using Algebra 1 Unit 5 for additional resources.</p>	<p>Optional Lesson 2 may be safely skipped if the Check Your Readiness assessment indicates that students are familiar enough with the concepts to engage with the other lessons.</p>
Lessons added: 0	Lessons removed: 0

Modified Plan for Algebra 2 Unit 4

Day	IM lesson	Notes
	Alg2.4 Check Your Readiness Assessment	Note that the Check Your Readiness assessment includes item-by-item guidance to inform just-in-time adjustments to instruction within the lessons in Alg2.4.
1	Alg2.4.1	
2	Alg2.4.2	Include this optional lesson if students demonstrate a need on the Check Your Readiness assessment.
3	Alg2.4.3	
4	Alg2.4.4	
5	Alg2.4.5	
6	Alg2.4.6	
7	Alg2.4.7	
8	Alg2.4 Mid Assessment	
9	Alg2.4.8	
10	Alg2.4.9	
11	Alg2.4.10	
12	Alg2.4.11	
13	Alg2.4.12	
14	Alg2.4.13	
15	Alg2.4.14	

16	Alg2.4.15	
17	Alg2.4.16	
18	Alg2.4.17	
19	Alg2.4.18	Include this optional lesson if time allows.
20	Alg2.4 End Assessment	

Priority and Category List for Lessons

High priority (+), Medium priority (0), Low priority (-)

E: Explore, Play, and Discuss, D: Deep Dive, A: Synthesize and Apply

Lesson	Priority (+, 0, -)	Category (E, D, A)	Notes
Alg2.4.1	0	E	This lesson builds on students' experience with exponential functions by reviewing exponential growth vs. decay.
Alg2.4.2	-	D	This optional lesson reviews square and cube roots in a geometric context.
Alg2.4.3	0	E	This lesson introduces rational inputs of exponential functions.
Alg2.4.4	0	E	This lesson studies growth and decay factors given for time intervals other than one unit.
Alg2.4.5	0	E	This lesson expands on the previous lesson to include fractional intervals.
Alg2.4.6	0	D	This lesson primarily consists of an information gap activity on writing exponential functions without a context.
Alg2.4.7	-	A	This lesson provides additional opportunities to apply ideas about exponential functions to less scaffolded problems.

Alg2.4.8	0	E	This lesson motivates the need for logarithms by asking students to find the value of exponents in expressions and equations.
Alg2.4.9	+	E	This lesson introduces logarithms.
Alg2.4.10	0	D	This lesson expands logarithms to bases other than 10.
Alg2.4.11	0	A	This lesson offers the opportunity to practice interpreting and evaluating logarithms.
Alg2.4.12	0	E	This lesson introduces the constant e .
Alg2.4.13	0	D	This lesson expands on the constant e .
Alg2.4.14	0	D	This lesson introduces natural logarithms.
Alg2.4.15	0	A	This lesson applies natural logarithms to solve problems in context.
Alg2.4.16	0	A	This lesson connects exponential functions and logarithms by using logarithms to solve systems of exponential functions.
Alg2.4.17	0	E	This lesson introduces graphs of logarithmic functions.
Alg2.4.18	-	A	This optional lesson includes additional applications beyond the scope of the standards.