

Secondary lesson plan- Algebra1

Subject	Algebra 1
Types of Students	<ul style="list-style-type: none">• Grades 8-9• Male and female
Learning Enviroment	<ul style="list-style-type: none">• Rural or Urban• Public or Private• 25-30 student classroom• Classroom and Computer lab
Objectives	Students will be able to: <ul style="list-style-type: none">• State the laws of exponents.• Simplify expressions with exponents.
Materials	<ul style="list-style-type: none">• Computer• Wolfram Alpha• Paper/Pencil• Calculator
Standards	<ul style="list-style-type: none">• A1.1.4<ul style="list-style-type: none">○ Use the laws of exponents for rational exponents
Lesson	Introduction: We know that $3^2 = 9$ and $3^3 = 27$. What is $3^2 \times 3^3$?
Procedure	<ul style="list-style-type: none">• Type in the function into Wolfram Alpha to see the answers and how it is simplified.• Then suppose you know that $3^6 = 729$.• To find $3^3 \times 3^3$, is there an easier way than multiplying 27 and 27?• Possible answers<ul style="list-style-type: none">○ What about $3^3/3^2$?○ Or $(3^3)^2$
Application	<ul style="list-style-type: none">• Knowing how to simplify these expressions will help students in a business career to figure out profit margins
Evaluation	Answer the following and have the answer checked before your students leave to demonstrate understanding of the concept. Simplify : $(2^4)^7$ over 2^5