

Welcome to 8<sup>th</sup> Grade Algebra I! My name is Mrs. Kornblau and I have been teaching math since 2009 and have been at BELL Academy since 2014. I am looking forward to our year together as we embark on many exciting activities. This summer, I would like you to complete a task that I have created especially for *you*. It explores proportional relationships and whether or not you can recognize a constant of proportionality. In Algebra, we will build on this topic as you develop a deeper understanding in the connections between proportional relationships, lines, and linear equations. I look forward to meeting you and don't forget your summer assignment! It should be brought to school when you return.

Name \_\_\_\_\_

**Mrs. Kornblau ~ 8<sup>th</sup> Grade Algebra I *Summer Task: Ratios and Proportions***

An architect is designing a new small movie theatre. The theatre will be an Imax theatre that shows movies in 3D. The architect decides to put 6 seats in each row. Since the theatre is small, the architect decides to put in 8 rows.

**Part A**

Make a table showing how the number of seats relates to the number of rows.

**Part B**

Does your table show a proportional relationship? PROVE it or disprove it in three different ways. (The 3rd way is on the next page)

1)

2)



Use the included rubric to self-assess your work and write down your strengths and next steps. Grade: \_\_\_\_\_

**Strengths**

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**Next Steps**

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*Formative Task: Ratios and Proportions*

<b>Common Core Learning Standard</b>	<b>1 Limited</b>	<b>2 Developing</b>	<b>3 Proficient</b>	<b>4 Exemplary</b>
<b>Mathematical Practice: MP.3</b> Construct viable arguments and critique the reasoning of others.	Task demonstrates a limited understanding of proportional relationships and provides an incorrect explanation.	Task demonstrates a partial understanding of proportional relationships and provides a partially correct explanation for support.	Task demonstrates an understanding of proportional relationships and provides an explanation for support.	Task demonstrates an understanding of proportional relationships and provides an exemplary, coherent explanation for support.
<b>Mathematical Practice: MP.4</b> Model with mathematics.	Task demonstrates a limited understanding of modeling proportional relationships.	Task demonstrates a partial understanding of modeling proportional relationships.	Task demonstrates an understanding of modeling proportional relationships.	Task demonstrates a thorough and complete understanding of modeling proportional relationships.
<b>Ratios and Proportions: 7.RP .2.a,b</b> Recognize and represent proportional relationships between quantities.	Task demonstrates a limited ability for deciding whether two quantities are proportional and recognizing the constant of proportionality.	Task demonstrates a partial understanding for deciding whether two quantities are proportional and recognizing the constant of proportionality.	Task demonstrates understanding for deciding whether two quantities are proportional and recognizing the constant of proportionality, but contains minor errors.	Task demonstrates complete understanding for deciding whether two quantities are proportional and recognizing the constant of proportionality.