

TASK 1: PLANNING COMMENTARY

Respond to the prompts below (**no more than 9 single-spaced pages, including prompts**) by typing your responses within the brackets. Do not delete or alter the prompts. Pages exceeding the maximum will not be scored.

1. Central Focus

- a. Describe the central focus and purpose of the content you will teach in the learning segment.

[The purpose of this learning segment is for students to build upon their knowledge of geometric theorems involving triangles. They will prove these theorems by constructing triangles using rulers and protractors, building and solving inequalities, and drawing conclusions using inductive and deductive reasoning. They will summarize their conclusions with formal syntax and vocabulary. They will apply these theorems to solve mathematical problems and real-world situations.]

- b. Given the central focus, describe how the standards and learning objectives within your learning segment address
- conceptual understanding,
 - procedural fluency, **AND**
 - mathematical reasoning and/or problem-solving skills.

[The mathematics standard for this learning segment is “Prove theorems about triangles” (CCSSM.G-CO.10). To prove these theorems, students will use “a variety of formats including deductive and inductive reasoning and proof by contradiction- and solve problems about triangles” (*Common Core State Standards: Mathematics*, p. 69).

The Lesson One objective is: *students will be able to explain why the Triangle Inequality Theorem is true for all triangles. They will be able to calculate the maximum and minimum lengths, in whole numbers, of a triangle’s side given the measurements for two sides, and assess whether three given values can form a triangle. They will create and solve inequalities to represent their conclusions.* Students will verify experimentally that a triangle cannot be formed if the sum of two sides is less than or equal to the sum of the third side (inductive reasoning/conceptual understanding). They will observe and explain that a straight line is always the shortest distance between two points, and use this principle to explain the Triangle Inequality Theorem (deductive reasoning/conceptual understanding). They will create inequalities that will verify whether or not a set of three values can form a triangle (procedural fluency). They will apply the Triangle Inequality Theorem to determine the minimum and maximum values needed to form a triangle given two side lengths (mathematical reasoning).

The objective for Lesson Two is: *students will be able to explain how to use the Converse Pythagorean Theorem to classify triangles and prove whether a triangle, given the side lengths, is acute, right, or obtuse.* Students will first verify experimentally that: the sum of the squares of the two shorter sides of an acute triangle is larger than the square of the longest side; the sum of the squares of the legs of a right triangle are equal to the square of the hypotenuse; and the sum of the squares of the two shorter sides of an obtuse triangle is smaller than the square of the longest side (inductive reasoning/conceptual understanding). Students will use calculators to square values and inequalities to compare the lengths of a triangle’s sides (procedural fluency). They will use the Converse Pythagorean Theorem to analyze and critique the reasoning of others and solve mathematical problems (mathematical reasoning/problem-solving skills).

The objective for Lesson Three is: *students will be able to use Triangle Congruence Theorems to analyze a pair of triangles and determine whether congruence can be established based on the given sides and angles. They will apply their knowledge of these theorems to real-world*

situations. Students will verify experimentally that SSS, ASA, AAS, and SAS always produce congruent triangles and prove by contradiction that SSA and AAA do not establish congruence (inductive reasoning/conceptual understanding). Students will use their knowledge of vertical angles and congruence notation to determine whether two triangles are congruent (procedural fluency). They will apply Triangle Congruence Theorems to a real-life problem where the solution method is not explicitly told to them in advance (problem-solving skills).]

- c. Explain how your plans build on each other to help students **make connections** between concepts, computations/procedures, **AND** mathematical reasoning or problem-solving strategies to build understanding of mathematics.

[My lesson plans build on one another to help students prove triangle theorems gradually diminishing teacher support. In Lesson One, I guide my students in experimentally verifying the Triangle Inequality Theorem via whole-class instruction (concepts). Students will attempt to build triangles with prescribed side lengths (problem-solving strategies). Using examples of the distances between locations familiar to my students, I connect the concepts of the Triangle Inequality Theorem to the inequalities that represent this theorem (procedures).

In Lesson Two, I build upon Lesson One by having my students experimentally verify the Converse Pythagorean Theorem (concepts). Rather than completing this task via whole-class instruction, I assign my students into groups and have each group complete a task needed to verify the theorem. Students will practice constructing triangles with prescribed angles using protractors (procedures). I build connections between concepts and procedures by having my students discuss and draw conclusions about the triangle they created with their peers. I model the inequalities that represent the Converse Pythagorean Theorem and assign practice problems that require these inequalities to classify triangles (procedures). This task demonstrates to my students that inequalities can be used in multiple ways. I introduce word problems that represent realistic scenarios, and guide my students through solving these (problem-solving strategies).

By the end of this lesson segment, students will have used inductive and deductive reasoning and proof by contradiction to prove three different triangle theorems. In Lesson Three, I pair students together and have them experimentally verify the four Triangle Congruence Theorems, and prove that SSA and AAA are not valid theorems with minimal teacher guidance (concepts). Using skills from previous lessons, students will construct and measure triangles that have prescribed sides and/or angles (procedures). Students will record their observations and use them to draw conclusions about the theorems. To build connections between procedures and mathematical reasoning, students will independently apply the Triangle Congruence Theorems to a realistic scenario in the *Puzzlement Problem*.]

2. Knowledge of Students to Inform Teaching

For each of the prompts below (2a–c), describe what you know about **your** students **with respect to the central focus** of the learning segment.

Consider the variety of learners in your class who may require different strategies/support (e.g., students with IEPs or 504 plans, English language learners, struggling readers, underperforming students or those with gaps in academic knowledge, and/or gifted students).

- a. Prior academic learning and prerequisite skills related to the central focus—**Cite evidence of what students know, what they can do, and what they are still learning to do.**

[Based on the previous exam, most of my students know the properties of similar figures. Based on formal and informal assessments before this learning segment, my students know that a

triangle's interior angles must add up to 180 degrees. About half of them understand the meaning of exponents and how to simplify them (ex. $2^3 = 2 * 2 * 2 = 8$).

Based on results from the previous exam, most of my students can identify and list the corresponding sides and angles of two figures. They can perform rigid transformations on quadrilaterals. Most of them can use proportional relationships to calculate the lengths of a figure.

Based on the iReady Diagnostic Middle of the Year (MOY) exam, there is high variability in the class's mathematical abilities. The highest performing students are able to solve some high school geometry and algebra problems, while the lowest performing students are still struggling with 4th and 5th grade mathematical concepts. In general, my students are still learning how to solve one and two step algebraic equations. They are still learning how to use mathematical symbols ($<$, $>$) to solve problems and represent real-life situations. Based on my observations, many students are still learning how to use graphing calculators, as well as rulers and protractors to create geometric figures. Some of them struggle with fluency in multiplication and division facts from 0-12.

My underperforming learner is at the fifth grade mathematics level according to her iReady MOY exam. Based on the previous exam, she can identify the corresponding sides and angles of two figures. However, she does not demonstrate knowledge of the properties of similar figures and cannot solve for a missing value given a proportional relationship. Based on my observations, she is able to form some geometric figures with a ruler and a protractor.

Based on previous assessments, my GATE learners are able to explain their mathematical thinking with words and symbols. They can simplify expressions with exponents and fractions. They can transform geometric figures and explain the transformation they performed. They can create a pair of similar figures and prove that they are similar. Based on the iReady MOY exam, they are still learning how to use variables in linear equations, apply geometric postulates to diagrams, and translate word problems into mathematical expressions.]

- b. Personal, cultural, and community assets related to the central focus—**What do you know about your students' everyday experiences, cultural and language backgrounds and practices, and interests?**

[My field school is an Arts and Entertainment Pathway school located in urban Los Angeles. 97% of the students are classified as socioeconomically disadvantaged. My students take one acting course and one design course during their freshman year. Because of the design course, many are familiar with reading blueprints.

About 24% of the school population are English Learners (EL), and 12 of my own students are Reclassified Fluent English Proficient (RFEP), most of them being recently reclassified after being an EL for eight years or more. Although the primary home language for most of my students is Spanish, most parents can speak and read some English.

Based on my observations, my students enjoy soccer, rock music, and drawing. My guiding teacher keeps several guitars in his room, and my students often come to his class during lunch or nutrition to play with them.]

- c. Mathematical dispositions—What do you know about the extent to which your students
- perceive mathematics as “sensible, useful, and worthwhile”¹
 - persist in applying mathematics to solve problems
 - believe in their own ability to learn mathematics

¹ From The Common Core State Standards for Mathematics

[To gauge how my students perceive mathematics as “useful”, I asked them during a lesson about similar figures how this concept might be used outside of the classroom. One student mentioned that similar figures are used in creating construction blueprints, but most did not know how to answer my question. Additionally, I gave my students an optional article on how eyes and camera lenses view objects in order to create real-life connections to rigid transformations and similar figures. My students took very little interest in this article, and most of them did not read it. I do not believe that my students generally see mathematics as useful or worth their time and effort, outside of a requirement for graduation.

I have observed that my students do not expend the necessary effort or persistence when given a problem they cannot solve right away. For example, my students were given a worksheet on solving linear equations with fractions. Because most of them have difficulty with fractions, many of them left the worksheet blank. Other times, my students will list answers that they know cannot be correct. For example, after my guiding teacher told my students that $i^2 = -1$, and $i^3 = -i$, he asked them to calculate the next seven powers of i . A few of my students listed “ i ” for all the powers.

Before this learning segment, I surveyed the class about their mathematical dispositions. The questions were asked on a Likert scale from 1 (strongly disagree) to 5 (strongly agree).

Questions included: “I am certain that I can understand the material taught in math class” (mean = 3.43), “I am certain that I can be successful in math class” (mean = 3.43), and “even when a math problem in class is challenging, I am certain that I can figure it out” (mean = 3.14). Overall, most of my students were neutral or mildly agreed with these statements (mean = 3.31). This indicates that while most of them do not have poor mathematical self-efficacy, there is room to build their confidence and develop a growth mindset.]

3. Supporting Students’ Mathematics Learning

Respond to prompts below (3a–c). To support your justifications, refer to the instructional materials and lesson plans you have included as part of Planning Task 1. In addition, **use principles from research and/or theory to support your justifications.**

- a. Justify how your understanding of your students’ prior academic learning; personal, cultural, and community assets; and mathematical dispositions (from prompts 2a–c above) guided your choice or adaptation of learning tasks and materials. Be explicit about the connections between the learning tasks and students’ prior academic learning, their assets, their mathematical dispositions, and research/theory.

[Because of the high variance in mathematical abilities in my class, I plan my lessons using the Universal Design for Learning (UDL). I choose learning tasks that activate my students’ background knowledge, promote choice and autonomy, and foster collaboration (Ralabate, 2016, p. 110). Additionally, I implement the Constructivism Learning Theory by planning active, student-centered learning experiences that construct new knowledge by building upon students’ prior knowledge (Dagar & Yadav, 2016, p. 2).

To activate background knowledge, I connect my lessons to cultural elements in my students’ lives. In Lesson One, I illustrate the Triangle Inequality Theorem by constructing a triangle that connects the school, a popular boba shop a few blocks east, and a Korean BBQ restaurant north of the school. I label the line segment between the school and the boba shop “7th street”, which is the actual street name. I use this example to demonstrate that the shortest distance between two points is a single line. To illustrate the usefulness of mathematics, I include word problems in my worksheets that relate to my students’ everyday experiences. For example, *Triangle Inequality Theorems Practice 1* includes a problem where a set designer is attempting to build a triangle.

In Lesson Two, I build upon my students' prior academic learning by reviewing the concepts from Lesson One and the different ways of classifying triangles. Because I know that my students struggle with using rulers and calculators, I allot extra time for the *Exploration* activity to assist my students with measuring their triangles and squaring the side lengths. To support student choice, I give them the opportunity to demonstrate their work on their board for extra credit. Additionally, I foster collaboration by promoting peer discussions in all my lessons, where students share their observations and draw conclusions with a partner. I promote student autonomy in Lesson Three by presenting a self-regulated activity that provides students with a hands-on learning experience. To build connections to my students' everyday experiences, I write my *Puzzlement Problem* about two students building a giant rabbit for a theater production. Students work in pairs to discover what properties prove triangle congruence, and which do not. To build upon my students' prior academic learning, I review and present examples of *included* and *vertical* angles.]

- b. Describe and justify why your instructional strategies and planned supports are appropriate for **the whole class, individuals, and/or groups of students with specific learning needs**.

Consider the variety of learners in your class who may require different strategies/support (e.g., students with IEPs or 504 plans, English language learners, struggling readers, underperforming students or those with gaps in academic knowledge, and/or gifted students).

[The objective for Lesson One is for students to be able to explain why the Triangle Inequality Theorem is true for all triangles. To support the whole class in successfully completing this task, I implement peer discussions and model my explanations with relevant examples, such as the distances between the school, a boba shop, and a KBBQ place. This support aligns with the Sociocultural Learning Theory, which states that learning is enhanced with social interaction and cultural artifacts (Main, 2023). The objective for Lesson Two is for students to use the Converse Pythagorean Theorem to classify triangles. I know from previous assessments that many students do not remember the different types of triangles. To support the whole class in successfully completing this task, I review the types of triangles with a graphic organizer, and connect the types of triangles to objects in real life. This support activates and builds upon students' prior knowledge, as aligned with Constructivism (Dagar & Yadav, 2016, p. 3). The objective for Lesson Three is for students to use Triangle Congruence Theorems to analyze a pair of triangles and determine whether congruence can be established. To support the whole class in successfully completing this task, I provide hands-on learning materials that support an active learning experience, as well as scaffolded questions that build upon students' zone of proximal development so that they can use these theorems independently (Dagar & Yadav, 2016, p. 2).

In Lesson One, students will need to use inequality symbols to compare the lengths of a triangle's sides. I know my students who struggle with basic mathematical skills struggle with these symbols. To support comprehension, I translate equations into everyday language. For example, if I write " $a + b > c$ ", I will read it aloud as "a plus b is *greater than* c". This aligns with Kenney et al., (2005), which recommends that teachers "combine the verbal with the visual" when helping students understand mathematical syntax (p. 69). In Lesson Two, students use a calculator to square numbers. My students who struggle with basic mathematical skills have difficulty using a calculator, and my RFEP students may struggle to comprehend the meaning of a "squared number", since the word "square" has multiple meanings (Kenney et al., p. 13). To support them, I review the definition of a squared number, model how to square numbers on a calculator, and present examples. Additionally, I conduct one-on-one check ins with students to make sure they are squaring numbers correctly. For Lesson Three, my students struggling with

basic reading skills may have difficulty following the directions for *Congruent Triangles Activity* because the instructions are information-dense, with both numeric and non-numerical terms (Kenney et al., p. 11). To support these students, I chunk the instructions into six separate parts, provide visuals to accompany the instructions, and bold key words (ex. *intersect*). Visuals that accompany instructions provide “multiple modes of representation” which aid in comprehension according to Constructivism (Dagar & Yadav, 2016, p. 3).

To support my underperforming learner, I frequently check-in with her to ensure that she understands the lesson’s content. This is a common support for struggling students, such as those with IEPs for specific learning disabilities (Cleaver, 2023). Since I have observed that she is more willing to tell me that she is confused by written communication, rather than verbally, I provide her with multiple written opportunities to give me feedback on how she is comprehending the material. Additionally, I use equity sticks during direct instruction and discussions to ensure participation and to keep her “mentally alert” (Safir, 2015).]

- c. Describe common mathematical preconceptions, errors, or misunderstandings within your central focus and how you will address them.

[One common error when using a ruler is starting to measure from the end of the ruler rather than at the 0 marker. I address this misconception by reminding students to start at the 0 marking at the beginning of Lesson One. I also check in with individual students, ask them to demonstrate to me how they are measuring, and provide corrections if necessary.

I know from previous assignments that there is a misunderstanding that to square a number is to multiply it by two. I address this providing multiple representations of squared numbers in Lesson Two, such as a^2 , $a \times a$, a^2 , and numerical examples. I review how to square numbers on the calculator and check individual students’ work to see if they are squaring numbers correctly.

According to a previous assessment, some students think that “corresponding” and “congruent” are synonymous. To address this misconception, I review the meaning of both terms during Lesson Three. I provide examples of the difference by drawing two figures on the whiteboard, identifying their corresponding sides, and marking the congruent sides and angles with tick marks.

According to Cirillo and Hummer (2019), there is a common misconception that conclusions cannot be drawn from diagrams when forming geometric proofs. This may affect my students’ ability to identify vertical angles in Lesson Three. To address this, I provide several examples of vertical angles, as well as a brief explanation on why they are always congruent.]

4. Supporting Mathematics Development Through Language

As you respond to prompts 4a–d, consider the range of students’ language assets and needs—what do students already know, what are they struggling with, and/or what is new to them?

- a. **Language Function.** Using information about your students’ language assets and needs, identify **one** language function essential for students to develop conceptual understanding, procedural fluency, and mathematical reasoning or problem-solving skills within your central focus. Listed below are some sample language functions. You may choose one of these or another language function more appropriate for your learning segment.

Compare/Contrast	Justify	Describe	Explain	Prove
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Please see additional examples and non-examples of language functions in the glossary.

[Prove that two triangles are congruent or not congruent using Triangle Congruence Theorems. (Lesson Three)]

- b. Identify a key learning task from your plans that provides students with opportunities to practice using the language function identified above. Identify the lesson in which the learning task occurs. (Give lesson day/number.)

[A key learning task that provides students with the opportunity to practice the above language function is the *Congruent Triangles Activity* in Lesson Three. After creating pairs of triangles using pre-cut sides and angles, students will answer scaffolded questions that assist them in explaining how they know that the triangles are congruent or not and if the method of construction that they used will always produce congruent triangles.]

- c. **Additional Language Demands.** Given the language function and learning task identified above, describe the following associated language demands (written or oral) students need to understand and/or use:

- Vocabulary and/or symbols
- Mathematical precision² (e.g., using clear definitions, labeling axes, specifying units of measure, stating meaning of symbols), appropriate to your students' mathematical and language development
- **Plus** at least one of the following:
 - Discourse
 - Syntax

[The vocabulary needed for the above language function includes: congruent, corresponding, included angles/sides, vertical angles, and the acronyms for Triangle Congruence Theorems (SSS, ASA, SAS, AAS). In order to prove whether a pair of triangles are congruent, students will need to comprehend the definition of *congruence* and identify the *corresponding* sides and angles of two triangles. They will prove congruence by using the four acronyms. They will explain the meaning of an *included* side/angle of a triangle. They will identify examples of *included* and *vertical* angles.

To prove whether two triangles are congruent, students will need to identify and apply congruence notation, which requires mathematical precision. Students will use tick marks to label congruent angles and sides. They will analyze two figures and identify the congruent parts based on the tick marks, and label congruent angles/sides with the correct amount of tick marks. They will use the “≅” symbol to label two figures as congruent.

The discourse in this lesson requires students to explain the meaning of SSS, ASA, SAS, and AAS. To do this, students will need to identify what the acronyms stand for and explain why these acronyms establish congruence (ex. SSS means that two triangles are congruent because their corresponding sides are congruent. It establishes congruence because it is not possible to construct two non-identical triangles with identical corresponding side lengths). Similarly, they will need to explain why SSA and AAA do not establish congruence. Students will analyze two triangles and determine which acronym can be used to establish congruence.]

² For an elaboration of “precision,” refer to the “Standards for Mathematical Practice” from The Common Core State Standards for Mathematics (June 2010), which can be found at http://www.corestandards.org/assets/CCSSI_Math%20Standards.pdf.

- d. **Language Supports.** Refer to your lesson plans and instructional materials as needed in your response to the prompt.

- Identify and describe the planned instructional supports (during and/or prior to the learning task) to help students understand, develop, and use the identified language demands (function, vocabulary and/or symbols, mathematical precision, discourse, or syntax).

[To support my students in executing the above language function, I provide hands-on materials, including pre-cut sides and angles, so that students can experimentally verify and visualize each Triangle Congruence Theorem. Each experiment (six total) is followed by scaffolded questions, which start with lower level DOK questions and then move on to higher level DOK questions. These questions will help students explain why or why not the triangles they created are congruent in their own words.

To support my students in successfully using the required vocabulary, I review the definitions for and provide examples and non-examples of *vertical angles* and *included sides/angles*. The *Triangle Congruence Graphic Organizer* contains rows for the six acronyms (AAA, SSS, ASA, SSA, AAS, SAS) as well as columns for definitions, examples, and whether the acronyms establish congruency. To support my students' successful use of precise congruence notation, I model how to use tick marks to label the congruent sides/angles of two triangles.

To support my students in successfully explaining the meaning of the four congruence acronyms, I provide opportunities for both peer and whole class discussion, as well as collaborative group work.]

5. Monitoring Student Learning

In response to the prompts below, refer to the assessments you will submit as part of the materials for Planning Task 1.

- a. Describe how your planned formal and informal assessments will provide direct evidence of students' conceptual understanding, procedural fluency, **AND** mathematical reasoning and/or problem-solving skills **throughout** the learning segment.

[The three exit tickets provide evidence of conceptual understanding. The Lesson One exit ticket asks my students to explain why the Triangle Inequality Theorem is true for all triangles. My students' responses will determine how well they understand why the theorem works. The Lesson Two exit ticket asks them to explain how to classify triangles using the Converse Pythagorean Theorem. This assessment is meant to determine how well my students are able to represent the properties of acute, obtuse, and right triangles in terms of their squared side lengths. The Lesson Three exit ticket asks my students why ASA establishes congruence, but not SSA. This assessment is meant to determine how well my students understand why the Triangle Congruence Theorems establish congruence.

Student responses to the *Review* problems, whiteboard demonstrations, and my observations during *Practice* and *Independent* work monitor evidence of procedural fluency. The *Review* problems in Lesson Two will determine whether students can successfully execute the procedures learned in Lesson One. The *Review* problems in Lesson Three will determine whether students can successfully carry out the procedures learned in Lesson Two. In Lessons One and Two, students have the opportunity to share their solutions to the worksheet problems on the whiteboard. These demonstrations not only monitor students' abilities to carry out procedures, but also their confidence in using the procedures. Very few students willing to demonstrate their work on the whiteboard would indicate low confidence in the lesson's procedures. During the *Independent Work* sections of Lessons One and Two and the *Practice*

section of Lesson Three, I check-in on individual students and answer questions. These interactions provide me with an informal assessment of students' procedural fluency. Problems 14 and 15 of *Classifying Triangles* provide informal assessments of students' mathematical reasoning skills. For these problems, students must follow the reasoning of someone else and explain why it is correct or erroneous. The *Puzzlement Problem* of Lesson Three provides a formal assessment of students' problem solving skills. Students apply Triangle Congruence Theorems to a real-life scenario.

My *Assessment Review* provides summative data of my students' growth in their conceptual understanding, procedural fluency, mathematical reasoning, and problem solving skills of this unit.]

- b. Explain how the design or adaptation of your planned assessments allows students with specific needs to demonstrate their learning.

Consider the variety of learners in your class who may require different strategies/support (e.g., students with IEPs or 504 plans, English language learners, struggling readers, underperforming students or those with gaps in academic knowledge, and/or gifted students).

[This class has twelve Reclassified Fluent English Proficient students. The National Council of Teachers of Mathematics (NCTM) recommends that teachers support bilingual students by allowing them to use their preferred language when doing arithmetic computations (NCTM, 2018). I provide English and Spanish instructions and translations for the word problems in *Triangle Inequality Theorem Practice 1*, *Classifying Triangles*, and *Triangle Congruence Practice*. About 30% of my students have reading comprehension skills that are at or below 5th grade level. To support them, I provide sentence frames for problems 9-21 of *Triangle Inequality Theorem Practice 1*, problems 9-15 for *Classifying Triangles*, and the *Puzzlement Problem*. Martiniello (2009) found that problems with high non-mathematical linguistic complexity negatively affects the performance of struggling readers. As a result, I wrote my assignments using short sentences of three clauses or less, such as the instructions in *Assessment Review*. I state most conditional clauses as separate sentences, such as the instructions for *Triangle Congruence Practice*. Two-thirds of the class have mathematics skills that are at or below fifth grade level. As a result, I designed my exit cards so that they focused on conceptual understanding rather than procedural fluency. This way, I can quickly determine if my students comprehend the lesson concepts, even if they struggle with the arithmetic involved. In assignments such as the *Assessment Review*, I ask my students to explain their answers in a complete sentence to help develop their mathematical reasoning.

My GATE Learners in particular find the class material very easy to comprehend. Additionally, over 75% of the class earned an A or B on the previous exam. As a result, I include rigorous problems in *Triangle Inequality Theorem Practice 1* and *Classifying Triangles*. For example, problem 10 from *Classifying Triangles* requires the use of both the Triangle Inequality Theorem and the Converse Pythagorean Theorem. To support my underperforming student, I provide opportunities for student feedback on my exit cards. Each exit card contains two questions: a content question, and a feedback question. (ex. this lesson was: too fast/too slow/ just right). Feedback questions have no correct answer, and allow students to successfully respond to at least one element of the exit card. This may lower my students' affective barrier and help them to answer the content question (Markwongnark, 2024). Additionally, I ensure that she has plenty of time to complete formative assessments, such as the *Assessment Review* (1.5 times average student completion time).

My informal assessments are scaffolded so that every student can complete at least a partial section. *Triangle Inequality Theorem Practice 1* starts with simpler problems that build procedural fluency, then moves onto word problems that require mathematical reasoning.]

References

- California Common Core State Standards Mathematics Electronic Edition. 2010. California Department of Education, Jan. 2013, pp. 64–104, www.cde.ca.gov/be/st/ss/documents/ccssmathstandardaug2013.pdf. Accessed Feb. 2024.
- Cleaver, Samantha. “80+ IEP Accommodations Every Special Ed Teacher Should Bookmark.” *We Are Teachers*, 27 Apr. 2023, www.weareteachers.com/iep-accommodations/.
- Dagar, Vishal, and Aarti Yadav. “Constructivism: A Paradigm for Teaching and Learning.” *Arts and Social Sciences Journal*, vol. 7, no. 4, Jan. 2016. *ResearchGate*, www.researchgate.net/publication/308084623_Constructivism_A_Paradigm_for_Teaching_and_Learning, <https://doi.org/10.4172/2151-6200.1000200>. Accessed Feb. 2024.
- Discovering Congruent Triangles Activity [Review of Discovering Congruent Triangles Activity]*. Utah Education Network ; UEN. Retrieved February 2024, from <https://www.uen.org/lessonplan/download/26172?lessonId=19831&segmentTypeId=6>
- Geometry Practice G.CO.C.10: Triangle Inequality Theorem*. (n.d.). JMAP, Inc. Retrieved February 8, 2024, from <https://www.jmap.org/Worksheets/G.CO.C.10.TriangleInequalityTheoremPR.pdf>
- Kenney, Joan M, et al. *Literacy Strategies for Improving Mathematics Instruction*. Ascd. North Beauregard Street, Alexandria, Va 1-. Tel: 800-933-; Tel: 703-578-; Fax: 703-575-; Web Site: [Http://www.ascd.org](http://www.ascd.org), 1703.
- Main, P. (2023, March 6). *Sociocultural Theory*. www.structural-learning.com. <https://www.structural-learning.com/post/sociocultural-theory#:~:text=The%20sociocultural%20theory%20proposes%20that>
- Maria Martiniello (2009). Linguistic Complexity, Schematic Representations, and Differential Item Functioning for English Language Learners in Math Tests, *Educational Assessment*, 14:3-4, 160-179, DOI: [10.1080/10627190903422906](https://doi.org/10.1080/10627190903422906)
- Markwongnark, Shayna. “Blended Learning Experiences for Students in Urban Schools”, January 11th, 2024. University of Southern California, Rossier School of Education. Los Angeles, California. Lecture.
This lecture was given to students enrolled in Education 679: Blended Learning Experiences for Students in Urban Schools (USC, MAT Program, Spring 2024). In this lecture, Dr. Markwongnark gives several tips for developing students’ self confidence. One of these tips is to present questions that are non-content related, so that students who are not confident in the class’s subject matter can successfully answer at least one question.
- Math Education Aspects of Students Who Use Two Languages - National Council of Teachers of Mathematics*. (2018). National Council of Teachers of Mathematics. <https://www.nctm.org/Research-and-Advocacy/research-brief-and-clips/Math-Education-Aspects-of-Students-Who-Use-Two-Languages/>
- Obuon, O. P. (2019). *Assessing mathematics or language proficiency? Relationship between english language proficiency and mathematics achievement among english learners* (Order No. 13814863). Available from Education Database. (2247988291). Retrieved from <http://libproxy.usc.edu/login?url=https://www.proquest.com/dissertations-theses/assessing-mathematics-language-proficiency/docview/2247988291/se-2>
- Ralabate, Patti. *Your UDL Lesson Planner : The Step-By-Step Guide for Teaching All Learners*. Maryland, Brookes Publishing, 2016.
- Roberts , D. (2012). *Triangle Inequality Practice* . Mathbitsnotebook.com; Math Bits’ Teacher Resources

- Safir, Shane. "3 Practices to Promote Equity in the Classroom." *Edutopia*, 1 Dec. 2015, www.edutopia.org/blog/practices-promote-equity-in-classroom-shane-safir
- "School Performance Overview: Los Angeles High School of the Arts." *California School Dashboard*, California Department of Education, 2023. www.caschooldashboard.org/reports/19647330117747/2023. Accessed Feb. 2024.
- SSS, SAS, ASA, and AAS Congruence [Review of SSS, SAS, ASA, and AAS Congruence]. Infinite Geometry ; Kuta Software . Retrieved February 2024, from <https://cdn.kutasoftware.com/Worksheets/Geo/4-SSS%20SAS%20ASA%20and%20AAS%20Congruence.pdf>
- Webb, Norman L. and others. "Web Alignment Tool" 24 July 2005. Wisconsin Center of Educational Research. University of Wisconsin-Madison. 2 Feb. 2006. https://static.pdesas.org/content/documents/m1-slide_19_dok_wheel_slide.pdf
- Wilkerson, D.J., Manatt, R.P., Rogers, M.A. *et al.* Validation of Student, Principal, and Self-Ratings in 360° Feedback® for Teacher Evaluation. *Journal of Personnel Evaluation in Education* 14, 179–192 (2000). <https://doi.org/10.1023/A:1008158904681>