TASK 3: ASSESSMENT COMMENTARY

Respond to the prompts below (**no more than 10 single-spaced pages, including prompts**) by typing your responses within the brackets following each prompt. Do not delete or alter the prompts. Commentary pages exceeding the maximum will not be scored. Attach the assessment you used to evaluate student performance (**no more than 5 additional pages**) to the end of this file. If you submit a student work sample or feedback as a video or audio clip and you or your focus students cannot be clearly heard, attach a transcription of the inaudible comments (**no more than 2 additional pages**) to the end of this file. These pages do not count toward your page total.

1. **Analyzing Student Learning**

    a. Identify the specific learning objectives measured by the assessment you chose for analysis.

    [In Assessment 4.1 there are three different types of questions that the students are being asked to answer. In the first three questions are selected-response questions. The students must match up the word of one of the three shapes (rectangle, parallelogram, and triangle) with its correct formula for solving area. These three questions assess the first two learning targets in the students' abilities to recall the formula for the area of the shapes. The following five questions include two different types of questions. The first question is a concept that was not covered in this learning segment. Students are to find the perimeter of the five shapes. This concept was covered in the lesson previous to the learning segment. It does not specifically address one of the learning segment's objectives, nor is it required in the fifth grade standards for Minnesota; however, it is still an important concept for fifth grade students to know and understand (or simply to review) prior to understanding the concept of area. Also in the last five questions on Assessment 4.1, the students are assessed on their ability to use the formulas for area and correctly apply them to solve for the corresponding shape. Question 4, 5, and 6 all cover the learning target/objective for Lesson Plan 1: "I will be able to recall and apply my background knowledge of area of rectangles in order to determine the formula for area of parallelograms." Question 7 requires the student to demonstrate their achievement at the Lesson Plan 2 learning target: "Students will be able to compare the shape of a triangle to a parallelogram and draw the conclusion that the formula for area of a triangle is ½ the formula for a parallelogram". Lastly, question 8 requires the students to show that they can perform the learning target in Lesson Plan 3: "Students will be able to visualize the regular shapes that are within an irregular shape and be able to draw the conclusion that if they add up the areas of all the regular shapes, they will have the total area of the irregular shape". The summative assessment at the end of the entire chapter will assess students again on their ability to solve for the area of rectangles, parallelograms, triangles and irregular shapes.]

    b. Provide a graphic (table or chart) or narrative that summarizes student learning for your whole class. Be sure to summarize student learning for all evaluation criteria submitted in Assessment Task 3, Part D.

[

Student	Post-Assessment – 21 Points	Equivalent Percentage
Student 1	20	95%
Student 2	18	86%
Student 3	18	86%
Student 4	21	100%
Student 5	19	90%
Student 6	19	90%

Student 7	17	81%
Student 8	21	100%
Student 9	21	100%
Student 10	17	81%
Student 11	20	95%
Student 12	13	62%
Student 13	20	95%
Student 14	11	52%
Student 15	16	77%
Student 16	14	67%
Student 17	11	52%
Student 18	12	58%
Student 19	14	67%
Student 20	20	95%
Student 21	13	62%
Student 22	20	95%
Student 23	19	90%
Average (Mean) Correct out of 21	17.1	81%
Mode	20	95%

This assessment was not an assessment in which students were given the opportunity to prepare. This assessment was given half-way through a chapter, and I wanted to see what their current knowledge was on the concept. It was a "Show What You Know" day. With that said, the students' scores are a complete result of my own instruction and the work students did in class since the students did not have the opportunity to study for the quiz. The average score from this assessment from this class was about 17 out of 21 possible points. This has an equivalent percentage of 81%. In this school's district, an 81% is equivalent to a B-. Only eight of the 21 students scored below this average. Most of the eight students who did fall below the 81% were the students who qualify for Title services. Based on the evaluation criteria, roughly 90% of the students met the standard for Questions 1, 2, and 3. This meant that students were capable of matching the correct vocabulary word (rectangle, parallelogram, and/or triangle) with the correct formula. This is not that determinative for me as an educator because the questions were a) selected-response (multiple choice), and b) low-level thinking questions/recall questions. On Questions 4, 5, and 6, roughly 80% of the students met the standard. This meant that the students were able to recognize the length/width and base/height of rectangles and parallelograms and 1) determine the perimeter 2) use the correct formula to solve for the area and 3) correctly label perimeter and area. On Questions 7 and 8, only 45% of the students met the standard and scored all four points for each of the questions. For question 7, this meant that they were able to a) recognize the three side lengths to solve for perimeter b) recognize the base and height, and use the correct formula to solve for the area of the triangle and c) correctly label both the perimeter and area of the parallelogram. For question 8, it meant that students were able to a) decompose the irregular shape into two regular shapes, b) solve for the area of the two new shapes, and c) draw the conclusion to add the two areas together.

c. Use evidence found in the **3 student work samples and the whole class summary** to analyze the patterns of learning **for the whole class** and differences for groups or individual learners relative to

- ◾ conceptual understanding,

- ◾ procedural fluency, **AND**

■   mathematical reasoning or problem-solving skills.

> Consider what students understand and do well, and where they continue to struggle (e.g., common errors, confusions, need for greater challenge).

[Important information regarding the whole class summary is detailed in prompt 1b. The average score for students was an 81%, or 17 correct out of a possible 21 points. Roughly 90% of the students met the standard and received all of the points for Questions 1, 2, and 3. Roughly 80% of the students met the standard for Questions 4, 5, and 6. Only 45% of the class fully met the standard for Questions 7 and 8. This information is very clear to see in the 3 Student Work Samples. Student 1, 2, and 3 Work Samples all provide good examples for students meeting the standard for Questions 1-6 (with the exception of Student 2 making a simple mistake on Question 6). These examples show the pattern of the whole class in consideration with 90% and 80% of the students who met the standards for Questions 1-6. This also tells me as the teacher, that the students had procedural fluency for solving the area of rectangles and parallelograms. They were mostly all able to do it quickly, and correctly. Questions 4, 5, and 6 also required students to demonstrate their conceptual understanding because the shapes given on the test only had two side lengths written. The students had to apply their knowledge about squares and parallelograms (that opposite sides have the same length/width) in order to correctly solve for the perimeter of the shape. Student 1, 2, and 3 Work Samples also provide clarity for me as the teacher on Questions 7 and 8. The two misconceptions and errors that I addressed in the Planning Commentary held to be true. Based on the three work samples, the reason for why the class percentage for meeting the standard is so much lower, is because students forgot to divide the base x height of the triangle by 2, and forgot to adjust the side lengths of the irregular shapes once they decomposed the shapes into two regular shapes. For Question 7, all three focus students calculated the area of the triangle to be 70 meters squared. They all used the same step to solve for area: multiply base x height. They also all forgot to divide by 2. Also for Question 7, there was another common error found amongst the Student Work Samples, as well as the whole group. Many of the students confused the height of the triangle for a side length of the triangle. This messed many students up when solving for the perimeter of the triangle. For Question 8, each of the three focus students decomposed the shape into two new shapes/rectangles. After that each student solved differently. Student 1 took all of the correct steps to solve, until the very last step. When he/she should have added the two areas, he/she multiplied them. Student 2 failed to adjust the side lengths once he/she decomposed the shape into two regular rectangles. They did the last step, adding the two areas together, correctly; however, they were adding the wrong numbers. Student 3 acted like he/she was solving for the perimeter of the irregular shape. He/she added up all of the side lengths, rather than finding the area. These three focus students all have different answers and different work. Yet, these student samples represent the class as a whole for Question 8. Students used many different methods to solve, and roughly 10 students successfully solved for the question. All three focus students demonstrated procedural fluency when they added up the numbers with decimals. They all remembered to line up the decimals when adding and line up the digits when multiplying.]

d. If a video or audio work sample occurs in a group context (e.g., discussion), provide the name of the clip and clearly describe how the scorer can identify the focus student(s) (e.g., position, physical description) whose work is portrayed.

[X]

2. **Feedback to Guide Further Learning**

Refer to specific evidence of submitted feedback to support your explanations.

a. Identify the format in which you submitted your evidence of feedback for the 3 focus students. **(Delete choices that do not apply.)**

- Written directly on work samples or in separate documents that were provided to the focus students

If a video or audio clip of feedback occurs in a group context (e.g., discussion), clearly describe how the scorer can identify the focus student (e.g., position, physical description) who is being given feedback.

[X]

b. Explain how feedback provided to the 3 focus students addresses their individual strengths and needs relative to the learning objectives measured.

[Student 1 Work Sample demonstrates the feedback that I gave to him/her. I did not feel it was important to put that much feedback for Questions 1, 2, and 3 because that did not require that high-level of thinking. Those questions were recall facts. The importance behind the formulas was that they know how and when to apply them to the rest of the problems. Student 1 completed many processes perfectly on the front page of the assessment. I acknowledged the things that she did correctly, especially the concepts that other students often forget. I acknowledged that he/she remembered the correct labels, as well as being able to line up the decimals correctly for addition and digits for multiplication. I specifically wanted to acknowledge the correct labels since that is a part of the evaluation criteria for meeting the standard/objective. For Question 7, many students throughout the whole class were confused by the height of the triangle, and thought it was an additional side they needed to add. I acknowledged that he/she remembered to add up only the three sides for the perimeter. Also for Question 7, he/she forgot to divide the area by 2, so I reminded her of the formula. Lastly, for Question 8, I gave her/him credit for doing all of the correct steps until he/she multiplied instead of added. By addressing these things on Student 1 Sample Work, I acknowledged the things that he/she did correctly. I also gave tips for how to correct his/her work. The feedback that I gave to Student 2 on the front page was basically the exact same feedback as Student 1. The students have the exact same work, and so I addressed the same concepts. Student 2 makes a simple mistake on Question 6, and so I address that question with a solution to fix the answer. Student 2 made a similar mistake in Question 7 by adding the height of the triangle when finding the perimeter. I draw arrows to the specific part of the problem that I am talking about, so that the student is not confused by what I wrote. Question 8 required me to explain that the student has to adjust the side lengths once he/she splits the irregular shape into two rectangles. Similar to Students 1 and 2, I give the same feedback to Student 3 on the first 6 problems. For both Questions 7 and 8, Student 2 seemed to have confused perimeter and area. For perimeter on Question 7 they divided by 2, and for area they did not divide by 2. I gave feedback to him/her for how to fix the mistake. Similarly, Question 8 the student solved for perimeter, rather than the area of the irregular shape. For each student, I wanted to give sufficient feedback that would allow them to fix the mistakes on their own. Students were allowed to make corrections on these assessments, but I wanted to see where their current understanding levels were.]

c. Describe how you will support each focus student to understand and use this feedback to further their learning related to learning objectives, either within the learning segment or at a later time.

[After I hand back the students' quizzes for them to look at my feedback, I will check in with them. I first want to make sure that they understand everything that I wrote down on their assessments. It gives the students an opportunity to ask questions if something that I wrote does not make sense to them. Then, I can check back in with them to observe the corrections

that they made (if they choose to make corrections). I will be able to determine if my feedback was effective based on if the students' corrections are actually correct. If students still have a hard time understanding a problem that they made an error on, I can provide supplementary materials. Lesson Plans 1-3 all include additional activities or "extension" activities for students' support. No matter what, I will be coming back to the concepts from this learning segment for the final chapter review. On review day, I will be able to see if the students are still fluent in solving for perimeter and area, or if I need to re-teach before the test.]

3. **Evidence of Language Understanding and Use**

   When responding to the prompt below, use concrete examples from the video clip(s) and/or student work samples as evidence. Evidence from the clip(s) may focus on one or more students.

   > You may provide evidence of students' language **use from ONE, TWO, OR ALL THREE of the following sources:**
   >
   > 1. Use video clip(s) from Instruction Task 2 and provide time-stamp references for evidence of language use.
   >
   > 2. Submit an additional video file named "Language Use" of no more than 5 minutes in length and cite language use (this can be footage of one or more students' language use). Submit the clip in Assessment Task 3, Part B.
   >
   > 3. Use the student work samples analyzed in Assessment Task 3 and cite language use.

   a. Explain and provide concrete examples for the extent to which your students were able to use or struggled to use the

   - selected language function,
   - vocabulary and/or symbols, **AND**
   - discourse or syntax

   to develop content understandings.

[Relating to the key task that I explained in the Planning Commentary, a primary moment in which students and I are engaging in discussion regarding the language function is in Lesson Plan 2. In Video Clip 1, Lesson Plan 2 I am teaching about the area of triangles. Before we begin solving for the area of triangles, I wanted the students to be able to draw the conclusion for what the formula for area of a triangle would be. At 2:41, I begin nudging the students with questions so that they would be able to derive the formula on their own. I ask the students for the formula of a parallelogram. I have the students tell me the "two letters" or symbols that represent the formula for the area. Once I have a student give me the two letters (b and h), I re-explain what those two letters/symbols meant. Explaining the area as "base x height" helps students build their vocabulary and knowledge of math symbols at the same time. Through this one question and explanation, the students' ability to use discourse for this mathematical concept was growing. At 3:22 I ask the students "what fraction of the shape do I have left?" By seeing how many hands were raised, I knew the students were comprehending my question. One boy gives me the correct answer of "one-half."It was at this point that students began to struggle with my questions that I had been using in order to lead them to the language function.

At 4:40 a student uses good mathematical language, which included the symbols b and h, and the fraction ½. Another student uses the same mathematical language at 4:47; however, she also had a hard time correctly drawing the conclusion for the formula. It was at this point that I did not want students getting frustrated because they were not getting it, and I also did not know if they would be able to get it on their own. Even though the students were not able to understand the concept of multiplying ½ by the base and height of a triangle, does not mean that they were not able to use the language function. Once they knew what the formula was, they were able to describe and use the formula later on in the class period.]

4. **Using Assessment to Inform Instruction**

   a. Based on your analysis of student learning presented in prompts 1b–c, describe next steps for instruction to impact student learning:

   ▪ For the whole class

   ▪ For the 3 focus students and other individuals/groups with specific 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 needing greater support or challenge).

[After looking at the students' scores from the assessment, I was informed that I do not need to re-teach area of rectangles or parallelograms. With 80% of students meeting the standard on that concept, there is not much need to re-teach. The scores also informed me that the students were able to recall the correct formulas with the correct shape. For both the whole class and for the three focus students, it would be a good idea to re-teach or at least review with students how to solve for the area of a triangle and the area of an irregular shape. By doing more practice on both concepts, students' procedural fluency for solving area of a triangle and area of irregular shapes would continue to increase. The 45% of students who met the standard would increase significantly with re-teaching or reviewing the concept. Area of triangles and irregular shapes will also definitely be a concept that I review before the final test for the chapter. Those two concepts would also be a good lesson that the Title teacher could re-teach to her students. If the eight students that she has were able to improve their score on Question 7 and 8, the percentage and average for the whole class would rise significantly. She and I could collaborate on extension ideas to help those students to perform at a higher level. An even simpler way to get student scores to rise would be to review one type of each problem (area of triangle and of irregular shapes) at the beginning of each class period for a week.]

   b. Explain how these next steps follow from your analysis of student learning. Support your explanation with principles from research and/or theory.

[Based on my analysis of student learning, it was evident to me that the students who qualify for Title are the students who need the most re-teaching. Re-teaching lessons is something that every teacher needs to be ready to commit to. Learning cannot progress for students if they get caught up on one concept that they cannot understand. I have witnessed that myself. I have watched students not understand a concept one day, and let that drag into their attitude about math the next day. Whereas when students feel confident about a concept one day, they are more willing and ready to learn a new concept the following day. I also believe that reviewing five minutes at the start of every class with the more challenging math concepts will help students' succeed. To review concepts daily will help engrain the solving process into the students' brains. There are many theories that support this idea of reviewing. Whereas if teachers present a new concept one day, and never go back to review it, the students will not

be as capable to solve the problems with accuracy and fluency in their future. By using both qualitative and quantitative results from this assessment, I am better able to understand the needs of my students, and what needs to be readdressed yet this year and in years to come when teaching this concept.]

Formal Assessment 4.1

Name: _____

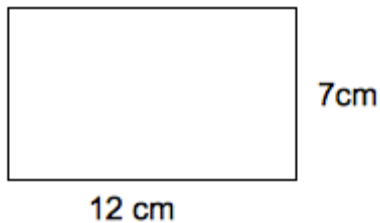S   K   W

Match the correct formula for area with the correct shape.

1._____ Rectangle   a. A = ½ bh

2. _____Parallelogram   b. A = bh

3. _____ Triangle   c. A = lw

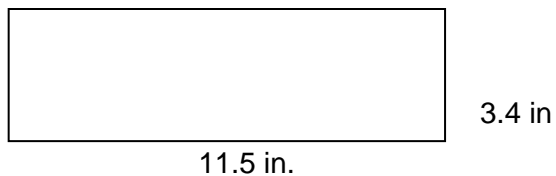Find the perimeter and area of the shapes below. <u>Show your work.</u>
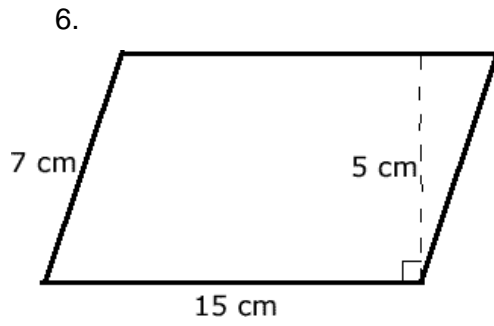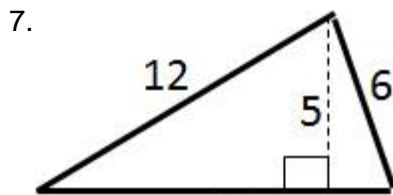
4.

7cm

12 cm

Perimeter: _____

Area: _____

5.

3.4 in

11.5 in.

Perimeter: _____
Area: _____

6.

Perimeter: _____

Area: _____

7.

Perimeter: ____14_____

Area: _____

8.

Area: __3 m_____