



## Math Lab Lesson #8: Semester Review II

*What have we learned this semester?*

### SITUATING THE LESSON:

**During Saturday Academy and Weekday, students have:**

- Explored general principles to use when operating on radicals. They used these principles to solve non-routine radical equations, and checked for extraneous solutions.

**Summary:** In this lesson, students will:

- Continue to work on the Cumulative Review Homework
- Solve an “Escape the Room” Puzzle
- Reflect on Math Lab

**Preparation Before Class:** Work through all problems and watch videos in advance. Read through and annotate the Lesson Plan in a way that will be useful to you.

### **Materials:**

- **Homework: Cumulative Review** (5 copies for students who forget to bring it)
- **Math Lab Lesson #8: Group Activity** (1 per student and instructor)
- **Math Lab Lesson #8: Survey** (1 per student and instructor)
- **Math Lab Lesson #8: Instructor Answer Key** (instructor only)
- **Math Lab Lesson #8: Escape the Room Clues** (instructor only, one copy per class, print double sided)
- **Math Lab Lesson #8: Additional Clues** (instructor only, one copy per class)
- **Scissors** (instructor only)
- **1 Paper Towel Roll** (IMPORTANT!)
- **Blank Note Cards** (at least 5 per student)
- **Whiteboards and Dry Erase Markers** (1 per pair of students)



## 1<sup>st</sup> Hour

### 1. Lesson Launch (15 min)

#### A) SATURDAY ACADEMY AND WEEKDAY REVIEW

- Ask students what they have been learning in Saturday Academy and Weekday (if applicable). What has been interesting? What have they struggled with? Take a few responses and jot them on the board.
- Ask students to take out their Classwork (or Homework or Daily Double) from Saturday Academy and find a problem that they feel confident that they understand. Have students pair up and use a whiteboard to explain their work to their partner. After a few minutes, have them switch who is explaining and repeat. Circulate and listen.

#### B) REVIEW KEY IDEAS

- Bring the whole class together again, and ask a few students to share out what they just learned from their partner. Review any key ideas and common mistakes that you noticed as you circulated.

### 2. Cumulative Review Homework (40 min)

#### A) WATCH MATH LAB VIDEO

- Have students watch the Math Lab Video that they created last week. It is on the seoscholars website under “Lesson 10: Cumulative Review Homework Help” (under the “Algebra” section, not the “Math Lab” section).

#### B) CONTINUE WITH CUMULATIVE REVIEW HOMEWORK

- Have students take out their Cumulative Review Homework. Remind students that completion of this packet is mandatory, and that it will help them on their Closing Assessment.
- Tell students to **identify the main topic that each question relates to and to note this next to each question** (they should follow the directions on the back page of their Classwork)
- Allow students to work in pairs. Circulate and provide support.
- Have a few students present a few problems to the whole class.



- If any student is finished, check their work and circle the problems they got wrong for them to review and try again. If any student got all of the problems right, have them circulate with you as an assistant teacher to answer questions and provide support.

### 3. Break (5 min)

- Snacks and chill.

## 2<sup>nd</sup> Hour

### 4. Escape the Room (35 min)

#### A) TO PREPARE WHEN STUDENTS ARE OUTSIDE OF THE ROOM

- Fold up the Escape the Room Clues. There are eight of them, numbered 1 – 8. When students aren't looking (have them leave the room), hide them in places that students should be able to find if they search around a little bit. Feel free to use any props that are around 😊.
- Cut up the three Additional Clues, fold them, and hide them. These are clues that will help students with the alphabet cipher.
- Tape a key (real or cut-out) to the inside of a paper towel roll, then hide this roll somewhere where students won't stumble upon it when they search around. It could even be in a closed closet or something.
- Write the following on the board (For NYC the message reads "Welcome to Math Lab", for SF the message reads "Welcome to Math Studio")

<u>NYC</u>	<u>SF</u>
<div style="border: 2px solid green; padding: 10px; margin: 0 auto; width: 80%;"> <p>WELCOME TO</p> <p>42   79   21   57</p> <p>45   79   76</p> </div>	<div style="border: 2px solid green; padding: 10px; margin: 0 auto; width: 80%;"> <p>WELCOME TO</p> <p>42   79   21   57</p> <p>24   21   18   70   54   36</p> </div>



B) ESCAPE THE ROOM!

- Invite students back into the room. Hand out the Group Activity and close the door (do not really lock the door). Explain how the game works. Essentially, the entire class is working together to gather clues that will help them find a key to escape the room.
- Let them go at it!
- Don't give hints early on.
- If students aren't finding a clue after a while, then you can lead them to it.
- If students are really stuck, help them with the alphabet cipher.
- See Instructor Answer Key for how the clues all work together.

## 5. End of Semester Reflection and Share Out (25 min)

A) SURVEY

- Hand out the Survey and give students 10-15 minutes to complete it. Encourage them to be thoughtful and write in complete sentences (not just one word). Explain that we will use their feedback to improve the course for next year.
- After students are done, give students an opportunity to share out.

B) REFLECTION WALL

- Reflect on the Reflection Wall. Lead a discussion around all of the things that we have learned.

C) CLOSE OUT THE SEMESTER

- Give students words of encouragement and praise. Highlight their growth.
- Remind students to study for the Closing Assessment!
- Close out the semester 😊