<table>
<thead>
<tr>
<th>REVIEW:</th>
<th>Notes:</th>
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<tbody>
<tr>
<td>Parts 1</td>
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<td>(A) As a team, determine the different actions being taken in this story by splitting up the actions with the use of a slash, /, between action sentences. Elvira, the cafeteria manager, has just received a shipment of new trays with the school logo prominently displayed in the middle of the tray. After unloading 4 cartons of trays in the pizza line, she realizes that students are arriving for lunch and she will have to wait until lunch is over before unloading the remaining cartons. The new trays are very popular and in just a couple of minutes 24 students have passed through the pizza line and are showing off the school logo on the trays. At this time, Elvira decides to divide the remaining trays in the pizza line into 3 equal groups so she can also place some in the salad line and the sandwich line, hoping to attract students to the other lines. After doing so, she realizes that each of the three serving lines has only 12 of the new trays. “That’s not many trays for each line. I wonder how many trays there were in each of the cartons I unloaded?”</td>
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(B) As a team, draw a comic strip scene for each action in the story (that you determined in Part 1A). |

<table>
<thead>
<tr>
<th>Scene 1</th>
<th>Scene 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scene 3</td>
<td>Scene 4</td>
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(C) Help the cafeteria manager answer her question using the data in the story about each of the actions she took. Show your work so I can see how you arrived at your solution.
Part 2

(A) (I will give your group some Post-It Notes lettered A-E): Does the order of the actions matter?

Elvira is interested in collecting data about how many students use each of the tables during each lunch period. She has recorded some data on Post-It Notes to analyze later. Here are the notes that she recorded:

- Some students are sitting at the front table. (I got distracted by an incident in the back of the lunchroom and forgot to record how many students.)
- Each of the students at the front table has been joined by a friend, doubling the number of students at the table.
- Four more students have just taken seats with the students at the front table.
- The students at the front table separated into three equal-sized groups and then two groups left, leaving only one-third of the students at the table.
- As the lunch period ends, here are still 12 students seated at the front table.

Elvira is wondering how many students were sitting at the front table when she wrote her first note. Unfortunately, she is not sure what order the middle three Post-It Notes were recorded in since they got stuck together in a random order. She is wondering if their order matters... What do you think? Does it matter which order the notes were recorded in?

Determine how many students were originally sitting at the front table by rearranging the middle three notes in a different order.

Determine what the new order implies about the number of students seated at the front table at the beginning.

Team Discussion Points

What is the problem about? What is it asking you to do? How will you go about answering the problem? How will you organize the information and your findings?
(B) Here are three different equations that could be written based on the different sequences of the notes. Match each equation to the different orders you found in Part 2A. Then, find the solution for each equation by reversing the sequence of events. Relate those reverse actions to how you would solve each equation algebraically.

1. \[ \frac{2(x+4)}{3} = 12 \]

2. \[ 2 \left( \frac{x}{3} + 4 \right) = 12 \]

3. \[ \frac{2x+4}{3} = 12 \]

**Part 3**

Reflection Discussion:
Does the order of operations in an equation matter?

How are the order of operations (or actions) used to create an equation (or story) related to the way you solve an equation?
E. The front table.
Students seated at
ends; there are still
as the lunch period
D. Students at the table.
leaving only one-third
then two groups left.
equal-sized groups and
spread into three
table.
C. Students at the table.
More students have
just taken seats
more students
B. Students at the table.
Doubling the number of
Joined by a friend.
Each of the students at
A. Students.
record now many
luncheon room and forget to
in the back of the
easily distracted by an
at the front table. I got
Some students are sitting