## 1. Sports Drink:

Sam is supporting the school soccer team by making a fruit punch flavored sports drink to dispense at the field. Sam says that for every 16 ounces of water they need 3 scoops of flavor mix to make the fruit punch flavored sports drink. Design a ratio table that they could use to find out
 how many scoops of flavor
mix they need for a 2 gallon (256 ounces) dispenser.

Share your thoughts with a partner near you. Ask:

- Did you use the same strategy?
- Do you agree with the amount of scoops your partner calculated?


## 2. Executive Function Connections

What kind of executive function are you using to see those different ratios as equivalent?

- Working memory? Cognitive flexibility? Inhibitory control?

Clues that I need to use that EF or that I am using that EF are...

A strategy that might help me is $\qquad$
3. Creamy Chicken Soup:

Alexis usually makes two batches of her grandpa's creamy chicken soup recipe. How can she use this ratio table to find how much soup is in 5 batches?


| Batches | 1 | 2 | 5 | 10 |
| :---: | :---: | :---: | :---: | :---: |
| Cups of Soup |  | 12 |  |  |


4. Gabriel and Kayla Make Cookies:

Gabriel and Kayla are discussing the best way to figure out the amount of ingredients they need in order to make enough chocolate chip cookies for their class party. Their class has 30 students in it.

They decide they need to triple the recipe amounts. Explain to your partner why they should triple the recipe.

## Servings: 12 Cookies

8 tablespoons of salted butter
1/2 cup white sugar
1/4 cup packed light brown sugar
1 teaspoon vanilla
1 egg
$11 / 2$ cups all purpose flour
1/2 teaspoon baking soda
1/4 teaspoon salt
3/4 cup chocolate chips

Gabriel and Kayla share their thinking about tripling the recipe


As Gabriel and Kayla juggle all the numbers to figure out how to triple the recipe, they are using their working memory.

How can you tell when a problem requires a lot of working memory?
What are clues that you are using your working memory or that your working memory is overloaded?

If a problem requires a lot of my working memory, a strategy I can use to help myself is to $\qquad$ .

| Kayla | Gabriel |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $11 / 2 \times 3$ | Batches | 1 | 2 | 3 | 4 |
| $3 \times 1=3$ and $3 \times 1 / 2=11 / 2$ | Cups of Fiour | $11 / 2$ | 3 | 4/2 | 6 |
| $3+11 / 2=41 / 2$ |  |  |  |  |  |

## Summary

Our goal today was to use ratio tables to calculate missing quantities of ingredients for recipes using multiplicative thinking.

When is a good time to write things down in a ratio table?

## Exit Ticket

Given that Gabriel and Kayla are going to triple this recipe, how much chocolate chips will they need?

Develop two different strategies to find the total amount of chocolate chips needed.

## Servings: 12 Cookies

8 tablespoons of salted butter
1/2 cup white sugar
1/4 cup packed light brown sugar
1 teaspoon vanilla
1 egg
$11 / 2$ cups all purpose flour
1/2 teaspoon baking soda
1/4 teaspoon salt
3/4 cup chocolate chips

