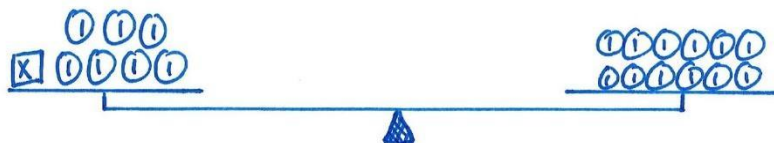


Lesson D4: Maintaining Equality

When Alexis is working with equations or inequalities, she prefers to see it as a balance model and draws the following:



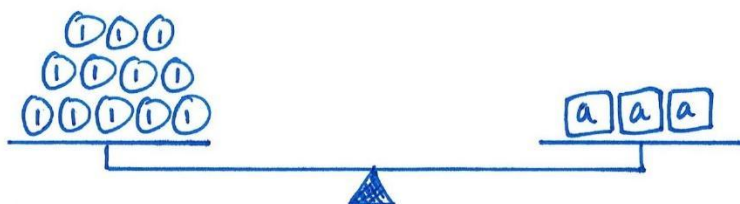
For $x + 7 = 12$, she then says:



For this balance there are 7 circles on each side. I can take off 7 circles from each.

1. What should Alexis draw next?

Sam writes the following balance model for a different equation.



2. a. What should Sam draw next when the like terms are combined?

- b. What is the value of a ?



3. What method do you prefer to use to solve equations? Share with another classmate why you prefer this method.

Solve the following equations using the method you prefer.

4. $x + 14 = 17$

5. $24 = 3y$

6. $b - 10 = 10$

7. $z \div 3 = 16$

Equations are like puzzles where I am trying to find the missing number. Like, what number do I divide by 4 to get 18? I know y must be a larger number. Like 40. Or 80. So, thinking of the missing number reminds me it has to be a large number, so I multiply 18 by 4.”



Solve the following equations by using Kayla's puzzle method.
Think about what the missing number should be.

8. $c + 7 = 20$

9. $12 = d \div 4$

10. $5e = 10$

11. $36 = 14 + f$

12. $g - 2\frac{1}{4} = 5$

Ups and downs in your executive function day to day



“Some days your executive functions may feel more like these plants, on the right, drooping. You may find it hard to juggle things in mind, or stop from doing the impulsive thing, or pivot to see things differently. This is totally understandable and happens to everyone! Our executive functions go up and down day to day. The core skills are still there, they haven’t disappeared.”



Have you ever felt like drooping sunflowers? What kinds of things do you think lead to ups and downs in EF? List out a few ideas below.

“When you feel rested, energized, motivated, and supported by friends around you, it can feel easier to use your executive functions. When you don’t have those supports, executive function can feel harder. You may make mistakes because executive functions are demanding. Everyone makes mistakes -- this is an important part of the learning process. Our brains learn every time we engage our executive functions, whether we succeed or fail.”

Remember:

- It’s important to recognize how executive functions can go up and down each day. You can take steps with sleep, activity, friends, and rewards to help your executive functions be more like the flowers on the left. And no matter what, making mistakes is totally understandable and is important for learning.
- You can develop and use good strategies and workarounds, when you recognize you need to juggle, or go off autopilot, or pivot to see things differently