

## Examining the Inclusivity of our Mathematics Classroom

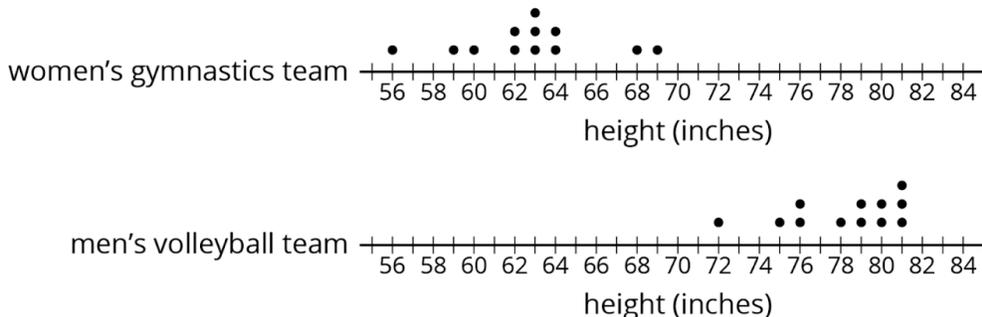
### Adapting Math Tasks to Be More Inclusive of the LGBTQ+ Community

#### Overview

In this assignment, you will think about how the contexts we use in the math classroom can contribute to students' sense of belongingness in the classroom and how these contexts can help increase students' awareness and understanding of the LGBTQ+ community.

**Part 1:** Many of the tasks in school curricula perpetuate stereotypes and isolate members of the LGBTQ+ community. For example, consider the task below from Illustrative Mathematics, Grade 7 - Unit 8 - Lesson 11.

**Description:** Two dot plots for "height in inches" are labeled "women's gymnastics team" and "men's volleyball team." The numbers 56 through 84, in increments of 2, are indicated on both dot plots. The data are as follows: Women's gymnastics team: 56 inches, 1 dot. 59 inches, 1 dot. 60 inches, 1 dot. 62 inches, 2 dots. 63 inches, 3 dots. 64 inches, 2 dots. 68 inches, 1 dot. 69 inches, 1 dot. Men's volleyball team: 72 inches, 1 dot. 75 inches, 1 dot. 76 inches, 2 dots. 78 inches, 1 dot. 79 inches, 2 dots. 80 inches, 2 dots. 81 inches, 3 dots.



Imagine being a non-binary student or a transgender student. How might studying and discussing men's and women's sports feel isolating, especially in the context of recent events regarding trans athletes?

Our choice of tasks conveys messages to our students and shows our commitment to an inclusive classroom. While partitioning a population into men and women is, historically, a natural division to study two parts of a population, there is no mathematical reason to study this particular partition in the classroom. What if instead we focused on the height of gymnasts and the heights of volleyball players regardless of gender? What if instead of using men and women to divide the data we instead considered people over 40 and people under 40? Another thing we see commonly in school curricula is gender stereotypes in story problems. For example it might be a female sewing at a constant rate while a male name is mowing a lawn at a constant rate. These types of problems enforce gender stereotypes. Simply using a non-binary name and *they/them* pronouns can make the task more inclusive.

**Task:** Find a task from your curriculum that imposes either a stereotype (a female sewing, a male hammering) or a task that would be isolating for a group of students.

1. Provide/describe the task you are modifying. You can type the task, include a screenshot, or write a summary if it is a longer task.
2. Describe how the task enforces gender stereotypes and/or is isolating to LGBTQ+ students.
3. Explain how you would modify the task to be more inclusive of the LGBTQ+ community

**PART 2:** In this part of the assignment you will explore how you can build math tasks that help educate our students' about the LGBTQ+ community and help students explore issues pertinent to the LGBTQ+ community. You will work to develop math tasks based off the graph below which models the percentage of adult Americans identifying as LGBT between 2012 and 2021.



Retrieved from <https://news.gallup.com/poll/389792/lgbt-identification-ticks-up.aspx>

4. Before you think about having students work with the graph, what do you notice and wonder about the graph? (You may find it productive to read the article where the graph was first published).
  
5. Come up with four different math questions you could ask students to explore in the context of this graph. For example, would a linear function model the relationship between the percentage of adults identifying as LGBT between 2012 and 2021? Justify your answer.  
List the questions you come up with in the space below and share them with your colleagues by adding them to this [google doc](#). Check out what your peers came up with too!
  
6. What type of conversation would you want to have with students prior to using this graph as the basis of a math task?
  
7. How could incorporating a graph like this into your unit help develop students' awareness of the LGBTQ+ community and issues pertinent to the LGBTQ+ community?