

## Closer to Home



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After spending some time with the GLSEN School Climate Report, you constructed the “National Percentages Matrix” to organize some important information about the mistreatment of LGBTQ students in schools across the nation. You can use this matrix to get an (approximate) calculation for the number of students in your own school who are experiencing this type of mistreatment. It is difficult to realize that your friends, neighbors, and classmates are being treated in these ways. But one good thing about bringing this issue closer to home is that it may feel like you can actually do something to change the situation.

1. According to national statistics<sup>1</sup>, approximately 8 percent of high school-aged students identify as lesbian, gay, or bisexual, and approximately 1 percent identify as transgender. Use this information, along with the total number of ninth, tenth, eleventh, and twelfth graders at your own school, to calculate the approximate number of students in each grade level at your school who identify as lesbian, gay, bisexual, or transgender. Organize your data in the following matrix.

### My School Matrix

	<i>sexual orient.</i>	<i>gender</i>
<i>Ninth grade</i>	—	—
<i>Tenth grade</i>	—	—
<i>Eleventh grade</i>	—	—
<i>Twelfth grade</i>	—	—

<sup>1</sup> <https://williamsinstitute.law.ucla.edu/press/lgbt-youth-bullying-press-release/>

2. You can use your “My School Matrix” from Question 1 and the “National Percentages Matrix” in order to calculate approximate numbers of students in your own school who are feeling unsafe or are being mistreated.

<u>My School Matrix</u>	<u>National Percentages Matrix</u>
<i>sexual orient. gender</i>	<i>unsafe verbal physical assault</i>
<i>Ninth grade</i> $\left[ \begin{array}{cc} \text{---} & \text{---} \\ \text{---} & \text{---} \\ \text{---} & \text{---} \\ \text{---} & \text{---} \end{array} \right]$	<i>sexual orient.</i> $\left[ \begin{array}{cccc} 59.5 & 70.1 & 28.9 & 12.4 \\ 44.6 & 59.1 & 24.4 & 11.2 \end{array} \right]$
<i>Tenth grade</i>	<i>gender</i>
<i>Eleventh grade</i>	
<i>Twelfth grade</i>	

- a. Use the matrices above to calculate the total number of ninth graders who identify as LGBTQ+ who
    - i. feel unsafe at school
    - ii. have experienced verbal harassment
    - iii. have experienced physical harassment
    - iv. have experienced assault.
  - b. Repeat part a, but calculate for tenth graders.
  - c. Repeat part a, but calculate for eleventh graders.
  - d. Repeat part a, but calculate for twelfth graders.
3. Organize all of your calculations from Question 2 into a matrix. Be sure to label the rows and columns of your matrix.

**CHALLENGE!** Set up a matrix multiplication chain so that any school can simply input the number of students at each grade level and the resulting matrix multiplication will reveal the number of students at each grade level who are experiencing each of the identified forms of mistreatment (unsafe, verbal harassment, physical harassment, physical assault).

*Hint: It will take more than two matrices.*