Nana's Lemonade - Student Activity

By Trey Cox

Act One:
Watch: "Drinking Lemon Water" Video:

On your own (without any help from other students):

1) Guess how many 1/8ths of a lemon (a wedge) should be used to make the large glass of water taste the same. Explain how you chose your guess. Write down one guess that you know will be too large but is still reasonable (e.g. don't write "a billion") and one guess you know will be too small but is still reasonable (e.g. don't write "0"). How do you this guess is too large?

Act Two:
Team up with at least one other student and brainstorm an answer to the following question:

2) What additional information would you like to have so you can try to answer the questions "How many 1/8ths of a lemon (a wedge) should be used to make the large glass of water taste the same?" **Don't actually try to provide a numerical answer** – just state the information you think would be necessary to do so. (And you may **not** just say "keep putting in lemons and keep tasting the water.")

3) Using the additional information you have been provided with regarding the glasses of water – answer the following questions:
    a. How many 1/8ths of a lemon will need to be squeezed into the larger cup to make it taste the same as the smaller cup of water?

Act Three:
Watch “The Answer”.

4) How close were your too high and too low guesses?

5) How close were your mathematical calculations?

Sequel

6) How large would a cup be that would require an entire lemon (eight 1/8ths of a lemon) to keep the same lemon taste?