

The World's Meanest Math Teacher

Your math teacher has invited a group of students to a room for a pizza lunch (or so he said). When all arrive, the door is closed and you discover the terrible truth. None of the invited students has been responsible about doing homework.

In the room there is a large, circular table with chairs all around, just enough for all the students. The teacher holds a large stack of Algebra worksheets. If you are handed a worksheet, you must go across the hall to the math lab where you will remain until you complete the assignment.

The first worksheet will be given to the student in chair 1. The world's meanest math teacher will then skip the student in chair 2 and give a worksheet to the student in chair 3, who will follow the first student across the hall to begin working on the assignment. This process continues, skipping one student, sending the next off, all the way around the table. When the teacher gets back to the beginning of the circular table he continues in the same fashion with the remaining students. (Note: That means when he removes the last or next to last student at the 'end' of the circular table, he still skips the next student and removes whoever follows. He does not start over again with the first student.)

Finally, there is only one student left. That student gets an A+ and no homework for the rest of the year.

The world's meanest math teacher tells everyone to get seated. You quickly count the number of students and have to decide where to sit so you will be the one left with the A+ and no homework. How can you come up with a quick rule so you will know where to sit no matter how many students there are? Good luck!

Directions

1. Figure out where you need to sit for different numbers of students in the room.
2. Create a table recording your information

Number of Students	Where to sit (seat number)

3. Answer the following questions:
 - a. Where would you sit if there were 19 students?
 - b. Where would you sit if there were 50 students?
 - c. Where would you sit if there were 130 students?
 - d. What's the rule for "n" students?
4. Provide a complete **explanation** of how you will know where to sit no matter how many students there are? Explain how you arrived at your answer.

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Record your solution on this page.

T-Table

Number of Students	Where to Sit (Seat Number)